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Original Communications.

ARTICLE I.—*Valedictory Address to the Graduating Class, Rush Medical College, Feb. 17, 1874.* By DE LASKIE MILLER, M.D., Prof. of Obstetrics.

Standing in the centre of an extended plain, the tallest man can discover objects only at a limited distance. Should he be surrounded by undulations of the surface, the radius of his vision would thereby be shortened, and its area circumscribed. Would he look out and over the landscape, one thus situated must seek some elevation; he must ascend to the lofty summit, though to reach it requires toilsome exertion. Then only does the beauty of the varied scenery presented to his vision around and below him, repay his effort.

As in the physical world, so in many respects is it in the intellectual. The uneducated man sees no harmony or relation in the varied phenomena of nature. And if surrounded as he usually is by superstition, the unveiling of the forces of nature excites in his mind rather the feelings of apprehension and dread. He can-

not look beyond the cloud, nor see by the lightning's glare, nor above the thunder hear a "still small voice." It is not till one thus situated has ascended from the low plane of ignorance, that fear will give place to any real pleasure, in the contemplation of nature or of nature's works.

The progress of the scholar has been allegorically compared to one making a difficult ascent of the steep mountain-side—"The hill of Science"—up which the toilers make slow and unequal progress. Some outstrip their companions for a time, but relax their efforts and fall behind when only part way up. A few, though they advance slowly, finally, by perseverance, reach the summit, and then realize a consummation of the pleasures of hope, as revealed in a knowledge of the sciences which they now may read in the volume of nature open before them.

As he who from a favorable height views the varied landscape, with its hills and valleys, river and lake, city and hamlet, presenting variety and beauty, but also a complexity amounting almost to confusion: so with the scholar, when retrospecting the subjects which have, individually and in detached portions, for so long a time occupied his attention. So diverse and even antagonistic do they seem in their nature, that to reduce them to a unity, and bring their manifestations into harmony, may well appear impossible. For does he not observe in the phenomena of nature the almost endless variety and complexity of her forces? How diverse in mode and result!

By partial views he regards light, heat, gravitation, electricity, magnetism, sound, as distinct entities. The operation of some *one* or more of these forces he sees manifested in the dew-drop sparkling in the rays of the morning sun, or in the brilliant hues of the flower on the mountain-side, or in the ponderous force that has lifted the summit of that mountain above the clouds—in the lightning's flash and attendant thunder—in the movements of planets through ether. Could anything seem more demonstrative of *diversity of forces, subject to different laws?*

The sum of human knowledge, when thus scanned, appears broken and fragmentary. The actual procedure of nature differs diametrically from man's method necessary to arrive at a knowledge of it. From primordial unity *her* processes radiate in multiplied combinations. Man must seize upon each separate development,

group by comparison and distribution, and slowly and painfully explore his way to the parent stem.

Since the discovery of the law of gravity, more than two hundred years ago, no scientific achievement has been so fruitful in results as the determination of the mechanical equivalent of heat. A body of a given weight, falling through a given distance, suddenly arrested, produces a definite elevation of temperature. The knowledge of this simple fact has wrought a marvelous change in all our conceptions of matter and force, and gives promise of results which the imagination fails to grasp. It is now considered that heat, motion, light, electricity, magnetism, chemical attraction, and mechanical work, are all but exhibitions of one and the same power, acting through matter. The molecules of matter variously stirred by this all-pervading force are thrown into waves, which impinge against our senses, and the motion thus communicated to our nerves, impresses us as heat, sound, light, etc., according to the rapidity and breadth of the undulations. If an undulation of one sort is interfered with, another immediately succeeds, of exactly the same strength. Light transforms itself into chemical action, this into heat, and heat into motion. All these modes of motion are not only mutually convertible, but they may also be turned into mechanical work. Force is a constant energy, and has been since the world began, never increasing nor diminishing in absolute value. Like a stream, now flowing in an uninterrupted channel silently and imperceptibly, now thrown into gentle undulations as it comes into contact with the subtle forms of matter, and now giving striking display of its power, as it meets with greater resistance. Light, sound, heat, the invisible flow of the terrestrial magnetic currents, as well as the aurora and zodiacal light, the circulation in plants and animals, are but modifications of a single force!

A professor of natural science once received from a member of his class the following question, "What would be the result, if an *irresistible* force should come in contact with an *immovable* body?" The professor, not suspecting that he was being quizzed, went into an elaborate argument to explain what would happen, with this conclusion, "The *irresistible* force would be partially obstructed, while the *immovable* body would yield a little, and finally they would settle at rest!" Query, was the professor posted in the modern doctrine of the persistence of force?

From the unity of force, a single step leads us to the comprehension of the unity of matter. The whole tendency of the revelations of modern science is to do away with the notion of an indefinite number of primary elements, and therefor to substitute a smaller and still smaller number of primitive forms of matter. By changes in the mode of aggregation of the atoms, which changes depend on the degree and kind of motion with which they are surrounded, matter appears to us under certain definite forms—as water, earth, iron, etc. From the results of analyses already made, we are justified in the inference, that bodies now believed to be elements must yet yield to the quest of the scientist the fact of their inherent compound composition. What revelations may we not hope for from our modern improved means of interrogating nature? Results may be looked for, more startling than the dreams of the alchemist; results which warrant the conclusion that *variety* of form and *unity* of substance, the evolution of the complex from the simple, is the fundamental principle of nature. Carried further, this view renders probable the position, that, pervading the vast domain of nature, occupying interstellar space, an *ether* exists in a state of *motion*. The ethereal atoms form societies, which are the molecules of bodies—a body is a collection of these societies of molecules. Between these atoms—molecules and bodies—exchanges of motion take place, which give rise to the phenomena of light, heat, gravity, etc. Pursuing the thought to this point, the scientist is led to exclaim, “Grant us, then, the *atom* and *motion*, we show you the *universe*!”

This doctrine is presented as the lesson of to-day. By experiment and logic we are urged to adopt the conclusions. When our assent to this has been obtained, we are bid to step boldly across the line that divides inorganic from the organic, and note the wonderful in this new domain! What force raises the forest against gravitation, till the branches reach the clouds! Estimate the weight of the giant oak, and all doubt of the potent energy of nature will be dissipated. In the vegetable kingdom, the operation of heat, as the dynamical agency to which the phenomena of growth and development are to be referred, is well seen in the process of germination. But this process is by no means a simple one. The nutriment stored up in the seed is, in great part, in the condition of *insoluble starch*, and this must be brought into a *solu-*

ble form before it can be appropriated by the embryo. By the *diastase*, starch is converted into *dextrine*, and then into sugar; the dextrine and sugar combine with the albuminous and oily compounds, and form the protoplasm, from which the tissues of the young plant are derived.

This account of the uses of starch in vegetation differs, in some particulars, from that given by the student under examination for his degree, who, when asked, "What are the uses of starch in germination?" answered, "The uses of starch in the German nation and elsewhere are for dressing linen, and for other laundry purposes."

Now, it can be easily shown, experimentally, that the rate of growth in the germinating embryo is so closely related (within certain limits) to the amount of heat supplied, as to place its dependence upon that agency beyond reasonable question, so that we are entitled to say that *heat*, acting through the germ, supplies the constructive force by which the vegetable fabric is built up. The correlation between heat and the organizing force of plants, is not less intimate than that which exists between heat and motion. The special attribute of the vegetable germ is the power of utilizing, after its own particular fashion, the heat which it receives, and of applying it as a constructive power to the building up of its fabric after its characteristic type.

Advance to a higher plane, and these identical forces are still met, and may be appreciated in the complex functions peculiar to animal organization.

The primitive cell, like that of the vegetable, is formed out of the inorganic world, and in both a series of motions succeed each other, according to a fixed order, obeying the law of molecular mechanics; *vital* energy, then, is the resultant effect of all other forms of force. The organism is subject to, and readily responds to all physical influences. Heat, light, and motion, are indispensable to life, and to the inert germ they, under proper conditions, impart the required energy to perfect and mature the organism. No living body can originate power: it can only convert the stored force derived from food. The force of the animal organism is derived from the vegetable, and that, in turn, from the mineral, through chemical interchanges.

As vibratory motion, in the animal organism, finds a resultant in integral motion, so mechanical motion may be resolved, in the

organism, into vibratory motion. Modes of external and internal friction are excitations which stimulate and quicken vitality. There is no part of the vital economy of any organ of growth, increase or decay—no change in any organic expression, but is the result of a movement in which the entire vitality has participated, directly or remotely, and in all the parts harmoniously.

The law of the unity and the persistence of force transcends experience by underlying it. Its dominion is not limited to physical phenomena: it prevails equally in the world of mind, controlling the faculties and processes of thought and feeling. The stars of the remote galaxies dart their radiations across the universe; and although the distances are so profound that hundreds of centuries may have been required to traverse them, the impulses of force enter the eye, and, impressing an atomic change upon the nerve, give origin to the sense of sight. Star and nerve tissue are parts of the same system. Stellar and nerve force are correlated; more, sensation awakens thought and kindles emotion. So that this wondrous dynamic chain binds into living unity the realms of matter and mind through measureless amplitudes of space and time.

Emotion and ideas display outward phenomena, which are subject to the laws of thermo-dynamics. The operations of the mental and emotional faculties are accompanied by a change of temperature in the brain. May not, then, the greatness of an idea and the strength of an emotion be measured, and their mechanical equivalent established?

Upon premises like these, *one law in nature* is introduced as the radical fact in the creed of to-day, which is interpreted to mean that this all-pervading and unchanging *law* is the "*fons et origo*" of all the wonders that salute us on every hand, admitting no intelligence or will superior to it.

(Lest my friend here (Rev. Dr. Sullivan) may begin to feel anxious about the orthodoxy of a member of his flock, I stop to say that these Unitarian views are advanced in a scientific sense, not in a theological.)

I regard the facts established by science as comparable to a few pebbles, gathered by finite minds on the shore of the infinite ocean of truth. What, then, are the mysteries still hidden in the bosom of the mighty unexplored? How far transcending all stretch of thought, that unknown and Infinite cause of all things?

The facts which we think we comprehend, we are attempting, as children string their beads, to arrange and classify, that we may study their relations with each other. It is fortunate for us that this string which we call *law*, is not an iron chain, binding the Infinite to blind chance, but a golden thread held by the hand of the Creator.

I see behind these phenomena, and upon which they depend, a *force*, that knows no difference between great and small, between ponderous and buoyant—a *force* that moves all things in harmony with its own will; that requires no greater effort to create a planet than to round a tear—a force which can reside only in Omnipotence, which we name God!

To Sir William Hamilton is attributed the following sentiment, which is reflected by gilded letters on the wall of one of the lecture rooms of the University of Edinburgh: "On this earth there is nothing great but man; in man there is nothing great but mind." Do I violate any rule of ratiocination when I assume the origination of all power in mind? Recall a sight frequently seen from our city: two noble ships, well freighted, sailing on right lines, but in opposite directions; if left to the force of the winds, would they not drift to certain destruction? Could the magnificent system of railways in our country ever have been constructed, independent of the *mind* of the engineer? What power, in two short years, could raise from ashes a city, which, in style and elegance, eclipses all others, but the *intelligence* of our citizens? And further, there are grounds for the belief that the phenomena of the material universe are the expressions of a mind and will of which man's is the finite prototype. To admit this, will be to admit the existence of the supernatural, always working in and through the natural. Force ceases to be a blind attribute of matter, and becomes a living, active principle, spiritual in its character, to which the human spirit turns evermore in solemn and mysterious worship.

The argument has been extended even beyond the point which we have reached. Carried to its logical sequence, it is affirmed that the theory of *evolution* is established. The conclusions succinctly stated, stand thus: The origin of species is the result of the ever varying manifestations of force. Vital force is not an independent energy; the modes of interchange are those of motion and primary force. Organic growth is affected by moisture, light

and heat-motion. All organic as well as inorganic interchange is atomic. The axes of crystals even represent unequal resultants of force: so resultants of organic interchange are represented by unequal axial directions. Interchange is solicited in one direction more than another, and the resulting figure of growth is elongated in that axial direction. So that organic interchange is greatest in the direction of most motion, and follows the paths of least resistance. From a dynamic point of view, natural selection is the evolution of life, along lines of least resistance. The preservation of varieties that succeed better than their allies in coping with surrounding conditions, is the continuation of vital movement in those directions where the obstacles to it are most eluded. On this is based the doctrine of "the struggle for existence, and the survival of the fittest."

This doctrine excludes creation and theism. The great work of nature by evolution culminates in the production of man. In reaching his present high estate of powers and endowments, man represents the sum of all the creative energies from primeval time; and is an improvement only, upon all that has preceded him. Man civilized is more perfect than the ape, more perfect than the savage.

Is this the *true* account of man's genesis? If it is, it must and will be found in accord with religion and revelation. What we call the *laws of nature*, are but the modes of expression of the Divine Will. Time is an unessential element in the fruition of God's great plan, for with Him "a day is as a thousand years, and a thousand years as a single day." I am anxious only as to the *truth* of the theory of evolution. Manifestly much remains to be learned, by finite minds. As presented by its advocates, the doctrine of evolution is *incomplete* or *untrue*.

I perceive in the long road of evolution numerous chasms, which remain to be filled up, or bridged over. In this chain of succession numerous links are wanting to complete its continuity and strength before it can bind as a law. A few are as follows, *e. g.*: First, material and force with which evolution shall begin. Whence come they? Are all things made out of nothing and by nothing? or are we *idealists*, and choose to believe in the non-existence of matter, and thus play with language? Though we say that man descended from the ape, the ape from an amphibious animal, this from a fish,

and this, in turn, through long successions from the protean Rhizopod, which performs the functions of vitality without organs; laying hold of its food without members, swallowing it without a mouth, digesting it without a stomach, assimilating it without absorbent vessels, or a circulating system, moving without muscles—a fragment separated giving origin to a new and independent being,—still we are as far from a satisfactory answer as when we started! Second, Where shall the link be inserted that connects animals and vegetables? Third, The gap that yawns between the species is as broad to-day, as it was before Darwin undertook to fill it. Fourth, It has not been proved that any animal, by any force in itself, can rise to the self-conscious and reasoning nature of man. The intelligence of animals is a closed circle, ever returning into itself: while that of man is progressive, inventive and accumulative. Fifth, Nor can the gap between the religious and moral sentiments of man and the instincts of brutes be filled by the miserable ape.

The alternative is the doctrine, that "God formed man of the dust of the ground, and breathed into his nostrils the breath of life, and man became a living soul." This doctrine carries with it the inference of separate creations. I suppose it to mean that all things have been produced by the Supreme creative will, either directly or mediately, through the agency of the forces and materials of his own providing. This does not imply that creation was miraculous, in the sense of being contrary to law. It does not contradict the idea of succession. There is no necessity that the process should be instantaneous and without progression. It does not imply that all kinds of creation are alike. Man's creation was in perfect harmony with the laws of procedure, which the Creator had established for his own operations. May not creation and derivation be complementary of each other? Is there any more difficulty in believing in the creation of ten millions of species (vegetable and animal), than in one out of nothing.

In all this matter we represent the man standing in the centre of an extended plain. The most cultivated and exalted intellect can discover the relation of facts only to a limited extent. *We* see no relation between phenomena, but just beyond our intellectual horizon all may be manifested. In our view, the chain may

appear broken; there, the links may be supplied. To us, chasms appear impassable; there, no irregularities exist, for—

"All are but parts of one stupendous whole,
Whose body nature is, and God the soul."

In conversation upon the merits of medical practice, one of the most learned and eloquent divines of this country said to me, "In my mind the question is settled. My father's family has been raised under the science and skill of regular physicians; my own has been thus far, and I entertain no thought of change. I am willing to accept results." In like manner I hold to the teachings of the Bible upon this point. From this source we obtain a more satisfactory solution of the subject than has been presented elsewhere. From revelation only, do we obtain any just conception of the attributes of an Artificer capable of producing such a work as man. "So noble in reason; so infinite in faculties; in action so like an angel; in apprehension so like a God; the beauty of the world, the paragon of animals—surely he must be allied to the Deity."

We are in the habit of measuring the greatness and the wisdom of the universe by the duration and profit it promises to our own race. A Roman sword or vessel from Nineveh awaken in us the conception of grey antiquity. We gaze upon the remains of Egypt and Assyria with silent astonishment. With an effort, we carry our thoughts back so far. Still, the human race must have existed for ages, and multiplied itself, before the pyramids were raised! We estimate the duration of human history at 6,000 years; but what is this in comparison with the time during which the earth carried successive series of rank plants, mighty animals, and no men. The history of man is but a short ripple on the ocean of time.

During the lapse of these cycles, there has been no time when to live was so great a boon to intelligent creatures as the present. Though it be a time of restless activity; of conflict of minds; of aspirations after the higher and better—it is a time, also, of progress, of invention, of improvement. Let the struggle proceed; it will surely issue in the survival of the fittest.

Coming out of this universal unrest, already we have innumerable appliances to aid in human efficiency, the conversion of

force in a thousand ways doing the work of human hands—steam for our motive power, lightning for our messenger, by which distant nations are made neighbors, effecting by concentration an increased efficiency of thought. A new idea or invention, started on any part of the globe, instantly becomes the property of all, and is at once assimilated into the accumulated mass of intellectual capital. Thus, by the telegraph wire—the *chorda vitalis* of mankind—the minds of all peoples act in harmony, responsive as the brain of an individual, in moving forward the car of progress.

Though invention and execution have added immensely to our resources for social, domestic and economic comfort and utility, the demands upon science are not yet canceled; nor will they be, till we have gained better and cheaper motive powers than steam; till we may travel from continent to continent on submarine railways, or by flying or ballooning through the air; till man can call down rain at will, when crops may be increased five-fold; till artificial light for domestic use shall be as cheap and abundant as water; till human life is protected from the dangers of explosions; till death's high carnival on land and sea is ended, by utilizing force, so that collisions become impossible, by rendering trains and ships repellant, preventing contact.

To members of the medical profession, the world is indebted for many of the useful inventions of life. Still greater achievements await well-directed efforts. I have an abiding faith in the unlimited possibilities of medical science. The day will come when physicians shall be familiar with the chemistry of diseases; when they shall know the exact poisons that produce them, and their antidotes; when they shall look upon the cure of maladies as simply a series of chemical problems and formulas; when they shall melt down all calculi and necrosed bone chemically, and not remove them by surgical operations; when hemorrhage shall be arrested, not mechanically, but by the simple application of gases and washes; when wounds shall be swiftly healed by first intention; the ravages of tubercle shall be stayed; fevers and inflammations shall be blotted out; when all morbid growths may be melted down; cancer cured; when all morbid organic germs may be destroyed; when contagion may be annulled—and thus the average duration of human life shall be lengthened, so that the ancient prophecy may begin to be fulfilled: "The child shall die an hundred

years old." With *force, matter, mind*—the trinity of humanity—what may not be accomplished?

Standing on this high plane of improvement and possibilities, imbued with the spirit of the age, we may serenely contemplate the history, achievements and prospective triumphs of the medical profession. In its broad catholicity all are made recipients of its kindly offices. Especially when the dark cloud of disease is settling down to envelop, there are none so high, though the brow be pressed by a glittering crown, that they do not petition it for relief; there are none so lowly, though possessing only poverty and its deprivations, but bless it for its benefactions.

From this standpoint how puerile and petty seem the discussions that have sometimes marred the life and character of the disciples of Esculapius!

How simple, to apply no stronger epithet, are those who restrict themselves to portions only of the resources of our art, and boast of belonging to a distinct school! A distinct school, forsooth! There is but *one* school of medicine, as there is but *one* science of medicine, which embraces all sciences. Cavilers at scientific medicine are not peculiar to our day. They have, in one form or another, from the earliest days, arrogated to themselves the honorable title of physician, and often disparaged science. Such should be warned by the fate of their great prototype, of whom Milton wrote:

"He fell

From morn to noon, from noon to dewy eve,

And was headlong sent

With his industrious crew to build in *****" — the pit whose
perfume is that of their specific for psora.

History is burdened with the detail of the successive and ignoble exequies of the sects who scoff at legitimate medical practice. And it shall ever be thus. Partial views are incomplete, therefore defective. Those who act on defective views may well be compared to bayous, which come to an abrupt termination, or to rivulets (and some are very small) that dry up in a brief time; while scientific medicine, like a noble river, ever increases in volume and power as it flows onward toward the infinite!

In looking back over this whole subject, is it not possible to see the beautiful harmonies of nature; that on her many stringed instrument *force* answers to *force*, like the notes of a great sym-

phony ; disappearing now in potential energy, and anon reappearing as actual energy, in a multitude of forms? Does not this wonderful unity and mutual interaction of force in the forms of inorganic nature, appear identical in the living forms of vegetable and animal life? That even that mysterious and in many aspects awful power of thought, by which man influences the present and future ages, is a part of this great ocean of energy. But here the great question rolls upon us, Is it only this? Is there not behind this material substance, a higher than molecular power, in the thoughts which are immortalized in the poetry of a Milton or a Shakespeare, the art creations of a Michael Angelo or a Titian, the harmonies of a Mozart or a Beethoven? Is there really no immortal portion separable from this brain-tissue, though yet mysteriously united to it? In a word, does this curiously fashioned body inclose a soul—God given, and to God returning? Here science veils her face, and bows in reverence before the Almighty. No word but His who formed us can break the awful silence. But faith comes in joyfully to accept that higher truth, which can never be the object of physical demonstration.

Graduates of 1874—Gentlemen :—I have made these remarks in your hearing as suggestive of thought. It may be a useful exercise of the mind for you to add to the argument and illustration. On an occasion so interesting as the present is to you, the topics touched upon are not inappropriate. No subjects are too broad or deep to claim your attention. Something more is expected from you than that you know how to estimate an ordinary dose of some sudorific or anodyne. You are expected to raise yourselves out of the groove, and go forth and study nature in her inviting fields.

By the act of the Faculty and Trustees of Rush Medical College, you are this evening raised to a higher plane than that on which you have traveled hitherto! You are placed on a level with the most gifted. You now start abreast with the most favored in this land. On you now devolve new duties and responsibilities. Said Lord Bacon, "I hold every man a debtor to his profession, from the which, as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amends, to be a help and ornament thereunto."

All that is worth striving for is before you. Your success will depend mainly upon your own exertions. Though you possess brilliant talents—genius, even—rely not on these; industry and perseverance are far more certain guaranties of success. To my knowledge, you have been faithful students. Let not the fatal notion take possession of your minds, that now study is ended; your application, on the contrary, should be redoubled. Keep in mind ever the allegory of the hill of science, press onward and upward, give way to no relaxation till your feet stand on elevations high as man has ever trod. Otherwise, your progress will be like the Arctic explorers on the ice-belt, who, while they walked ten miles toward the pole, drifted twelve toward the equator.

Demosthenes being asked the first requisite of the orator, replied, "action;" the second, "action;" the third, "action." Were I to define the requisites of the successful physician, it would be, read, read, read. Buy books and read them, then buy more books. True, some will prove well nigh worthless, but you will soon learn to distinguish fine gold from dross.

Gentlemen, for these many weeks we have floated delightfully together on the placid stream of time. To-night we drift apart, each to fill the space society may yield to him. You go hence bearing with you the kindest wishes and benedictions of the Faculty for whom I speak. We will ever rejoice in your success; we will ever sympathize with you in your trials.

Plato says, "Truth is the beginning of every good to the gods, and of every good to man; and he who would be blessed and happy, should be, from the first, a partaker of the truth, that he may live a true man as long as possible, for then he can be trusted."

From you we expect but one report. That in every relation of life—whether as men, as physicians, or as citizens—you have been *true* to yourselves, to the profession, to all.

I must not detain you longer. I would avoid the word

"Farewell, a word that must be—and hath been
A sound that makes us linger—yet, Farewell."

ARTICLE II.—*Myelitis*. By WALTER HAY, M.D.

M. P.; æt. about 65; physician, in active practice many years. First seen, by request of Prof. Rea, Nov. 30, 1873. Had been visited incidentally by several eminent medical gentlemen, and prescribed casually for himself during the two months of his confinement to bed, but appears to have had no systematic treatment. Has received the impression from some of these that his case is one of locomotor ataxia; and has received, also, numerous hypodermic injections of morphia to allay pain, which, however, were unsuccessful.

Patient's mind being in an exceedingly unstable condition, it was impossible to obtain an intelligible history of the case.

Symptoms, at present, are great mental instability, resembling hysteria, characterized by alternations of outcries, groans, prayers, and imprecations, with diminution of attention, ideational incoherence, and failure of memory, expressing, in their totality, incipient senile dementia. Heart's action a little excited; arterial tension a little diminished; pulse rate, 72. Temperature normal; hygrometric condition normal. Cutaneous sensibility slightly increased over chest and abdomen, normal over all of the extremities, objectively; has "prickings of pins and needles in the soles of the feet and legs." Pain agonizing; throughout the lower extremities intermittent and lancinating; through the diaphragm and lower thoracic region continuous and intense, described as an iron band crushing his chest; involuntary respiration being somewhat impeded thereby, is supplemented by voluntary muscular action. Pain unaffected by movements of the body, which he attempts frequently, and accomplishes by means of his arms, with the assistance of an attendant.

Pupils are contracted, and tongue dry, red, and fissured.

Motility lost in the left lower extremity altogether, preserved to a slight degree in the right in adductors of thigh, in upper extremities unimpaired.

Bladder and rectum paralyzed; sphincters normal; urine dribbling constantly.

Special sensation unimpaired; pupils contracted; conjunctivæ injected; reflex irritability in lower extremities increased.

Removed, by means of the catheter, about a quart of highly alkaline urine, loaded with ammoniacal phosphates; no attempt

having been made to evacuate the bladder previously. Ordered—

Potassii Bromid.,	- - - - -	grs. xv.
Aquæ Destil.,	- - - - -	oz. ss. M.

every four (4) hours, and atropiæ gr. $\frac{1}{80}$ every eight (8) hours.

Dec. 1. Had passed the night as usual, suffering frightfully. Bowels evacuated, the first time in ten days. Removed about twenty ounces from the bladder. Ordered—

Potassii Bromid.,	- - - - -	grs. xxx.
Aquæ Destil.,	- - - - -	oz. i. M.

every four (4) hours; atropiæ granules, gr. $\frac{1}{80}$ every four (4) hours; beef essence and milk *ad lib.*; occasionally a little sour ale to quench his thirst.

9 P. M. Removed similar quantity of urine. Continue treatment. Pain had ceased, except in left sciatic nerve, and respiration was freer.

Dec. 2, 9 A. M. Found patient narcotized; at 4 A. M. had been seized with hiccough, and had called in a neighboring practitioner, who had "passed a catheter, but found no urine in the bladder, and had given pulv. opii, gr. j; gum camphor, gr. ij, in two pills."

Upon inserting catheter was more fortunate than the previous operator, finding about a pint of ammoniacal urine. Ordered treatment continued, and requested consultation with Profs. Allen and Gunn, who, at 4.30 P. M., found narcosis continuing, and were convinced that a much larger quantity of opium than the alleged "one grain" had been taken.

These gentlemen, after careful examination of the case, sustained my diagnosis of chronic myelitis in its later stages, but, considering it essentially hopeless, made no suggestions for treatment.

As there were no evidences of pain, reduced doses of medicine to one-half, as before.

Death ensued Dec. 7, nothing noteworthy occurring in the meantime.

The only point of interest in the case being its diagnosis—the prognosis being hopeless—it is published simply because it has already been reported as a case of locomotor ataxia.

The diagnosis rests upon the tripod: paraplegia, without anæsthesia; cramp—painful spasm—of the diaphragm, indicated by sense of constriction around lower portion of thorax; and alkalinity of urine.

NO. 122 SOUTH SANGAMON ST.

ARTICLE III.—*A Case of Paraplegia, from Peripheral Irritation.*

By G. W. STEWART, M.D., Muscatine, Iowa.

In May, 1872, while serving as county physician, I was called to the county poor house to see an inmate, Maggie O——, aged 18, who complained that she could not pass her water.

I introduced a catheter, and evacuated the bladder of its contents, only about four ounces of very highly colored urine. Upon inquiry, I learned that a larger quantity had not been passed on any one day for a period of a month, and on some days the quantity was even less.

She complained of some pain, though not intense, over the region of the kidneys, and since the inability to pass her water had existed, (a period of twenty-four hours), there was in the neighborhood of the bladder a burning or tingling sensation, more or less constant, and most marked when she attempted to pass her water.

Upon inquiry, I learned that she never had been robust, and discovered that she was of a scrofulous diathesis, having had, in fact, a few years previous, a scrofulous ulcer in the glands of the neck, the characteristic cicatrix of which, with puckered tissues bordering the same, being particularly noticeable.

Continuing my examination, I subjected the urine to the heat and nitric acid tests for Bright's disease; examined it with the microscope, and tested its specific gravity. Chemical tests revealed little (*i. e.*, tests tried) as to the real character of its sediments observed, and its high color, showing neither albuminuria, nor a diminution of urea; but the microscope presented to view blood corpuscles, and casts cylindrical in form, and evidently from the convoluted tubes. Specific gravity normal, 1020.

Subsequent to this, I repeated frequently the same tests, and several times with like results. However, at a later period, the specific gravity was lower.

TREATMENT.

Not recognizing, for some time, any connection or relation existing between the paralysis of the bladder, and partial paralysis of the sphincter ani and muscles of lower extremities which followed, on the one hand, and that of the desquamative nephritis on the

other, I prescribed as though they were separate affections; administering, for the first, strychnia, beginning with $\frac{1}{16}$ of a grain, three times daily, and increasing gradually to $\frac{1}{8}$ of a grain; for the second, I endeavored to relieve the kidneys from active duty by stimulating the skin and bowels to eliminate in an increased degree fluids from the body, administering, for the purpose, diaphoretics and cathartics, using of the former, nitrate of potash and Dover's powders, the latter of which served also to allay pain and inflammation in the kidneys. As cathartics, I used the salines; at the same time directing that the patient be kept unexposed to cold or moisture, and that she take at intervals of from two to three days a hot air bath; her diet to consist of milk and broths.

This course of treatment I followed for a period of six weeks, the first two of which saw in our patient some improvement, the quantity of urine being greater, of a better color and general appearance; and the bladder responded to the stimulation it received—as I at that time thought through the influence of the strychnia—and voided urine for a few days quite naturally. But after a few days, seeming to have become acclimated, so to speak, to the remedial agents used, the case changed fronts, not only ceasing to improve, but became worse; the quantity of urine passed diminishing, and the paralysis intensifying and extending to other parts than that hitherto affected, when we had a completely paralyzed bladder, sphincter ani and muscles of the lower extremities partially so.

Our patient having become by this time quite considerably debilitated by the action of cathartics and the disease combined, I dropped, for a time, the former, and administered in their stead, tonics. And having given, as I thought, the strychnia a fair trial, with no apparent benefit, I dropped it, and took up electricity, administering it first directly to the bladder by placing one pole of the battery in the stream of urine as it was voided through a catheter, making it (the urine) conduct the current directly to the bladder, and the other pole, placed over the spinal column, completed the circuit.

This operation was performed daily for another six weeks, with no apparent change, except, now and then, some dribbling of urine. There being no improvement, I did not feel much encouraged, and my patient was still less so, and refused to do anything further in the way of treatment.

At about this time, I read before our County Medical Society a history of her case, in which I expressed surprise that uræmia had not manifested itself, considering the long duration of the disease, and the limited amount of urine passed (about four ounces per day); expressing the opinion that it would seem as though she must be a malingerer, at least so far as the quantity of urine voided was concerned; that it would seem impossible for so small an amount of urine to be passed for a period of three months without uræmia declaring itself; yet, having faith in the moral integrity of my patient, I could hardly believe her to be a malingerer. However, I directed that she be closely watched, which was done, I think, faithfully by a person of undoubted integrity, but she could not be caught practicing or attempting to practice deception.

Never having seen laid down in the books any method by which one could determine, independent of the testimony of a patient, whether or not a bladder was paralyzed, or whether an inability on the part of the patient to urinate really existed, I was at a loss how to proceed further, but being frequently at the poor house, I one day introduced into my patient's bladder a male catheter, having the instrument curved to about the extent it would be when used in a male. I then attempted to rotate the instrument, which I found could be done, in which case the inner extremity would be made to describe a circle. To do this with facility, as in the present instance, the bladder must needs be in a state of at least partial distension; and, being able to rotate the instrument as well with the bladder empty as when it contained urine, I concluded that the organ was paralyzed, and that I had discovered a method of diagnosis, new, at least to me, by which I could determine in such cases whether a bladder were or were not paralyzed. I have since, on a number of occasions, tried the plan, and it has operated, as at first, to my satisfaction.

In the meantime, the case being left to itself, uræmia speedily declared itself, and the paraplegia was intensified; vertigo, dimness of vision at times, and irritability of the stomach being present, accompanied by the almost complete loss of power in muscles of lower extremities.

At this juncture, our patient wished me again to take her in charge, which I did, though with little hope of doing her any permanent good.

I put her upon diaphoretics and cathartics, using elaterium; tried again strychnia, and followed the same hygienic and dietetic treatment adopted at first.

Upon this line of treatment our patient improved from the first, and, at the end of two months, there being an absence of the more marked symptoms of uræmia, the kidneys acting with a considerable degree of vigor, with a complete absence of all paraplegic symptoms, our patient thought sufficient had been accomplished, and desired no more treatment, and, accordingly, she received none.

After the lapse of two months, however, there was a return of all the old symptoms of pain over the kidneys, a burning or tingling sensation of the bladder, scant and highly colored urine, containing blood corpuscles and casts, with paralysis of the bladder. I pursued the same course of treatment for the kidneys as before; but noticing that throughout the history of the case the two conditions of nephritis and paraplegia moved together; that, where the former attained its acme the latter did also; likewise, when there was an amelioration in the symptoms of the former, there was also an amelioration in those of the latter, I came to the conclusion that a relation existed between them, and that the latter was produced by the former; therefore, I left the paraplegia entirely to itself. I believed that the paraplegic condition was due to peripheral irritation, set up by the diseased kidneys by or through reflex action of the spinal cord; and that the requirements were to direct my treatment principally to the kidneys.

This I did, ignoring altogether at first the paraplegia, and the case began to improve, and continued to do so, as it had at a previous time, until there was an absence of the more marked symptoms of uræmia, an increase in the amount of urine, an improvement in general appearance of the secretion, which showed again a specific gravity but little below healthy, a marked improvement in that particular; also, the paraplegic condition showed a marked improvement, the bladder voiding urine quite naturally but not perfectly, with the sphincter ani and muscles of lower extremities responding to stimuli, and acting with their wonted vigor.

Here the case seemed to halt, and, a little out of curiosity, I tried again by turns, with no other treatment, strychnia and electricity; but no improvement by that means could be brought about

in the action of the bladder, and I became more than ever convinced, that until a cure could be found for uræmia, the bladder, in this case, could not be made to act in a degree perfectly normal.

The case has passed out of my hands, but remains about as I left it a year since.

ARTICLE IV.—*Case of Monstrosity.* By F. E. ENGLISH, M.D.,
Altoona, Polk Co., Iowa.

The following notes were handed me by my father, R. George English, M.D., of Des Moines, Iowa, and as the case is one the like of which is seldom met with, I concluded to submit it for the consideration of the readers of the JOURNAL, if thought worthy of a place therein.

"Case. Called at 9 o'clock P. M., Nov. 4th, 1873, to Mrs. R. L., aged 24 years; fine physical organization; rather above medium size, and in good health. Primipara; said her term of gestation had not expired by about two weeks; had had premonitions of labor, however, for twenty-four hours, and at present decided uterine contractions declared the fact that her delivery could not be far in the future. A very noticeable feature in the case was the enormous distension of the abdomen; digital examination revealed a capacious pelvis, complete dilatation of the os tinæ, and at every uterine contraction the membranes descended unusually low, and yet at no time previous to their rupture could a presentation be detected. The rupture was followed by a most extraordinary flow of liquor amnii, not less than ten certainly, and perhaps as much as twelve, quarts, followed by a rapid decrease in the size of the abdomen, soon after which a presentation was detected, but what was it? Vertex, breach, shoulder, elbow, knee, or footling, for my life I could make no satisfactory diagnosis. The old homely adage occurred to me, —'Feeling is believing, but seeing is the naked truth,' but I was scarcely able to form an intelligent belief; diagnosis failed me. The digit came in contact with an aperture scarcely large enough to admit the point of the finger, surrounded by irregular elevations and depressions upon a bony surface. No such presentation had

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ever occurred in the course of my somewhat extensive practice, covering a period of more than a score of years, and I was forced to admit (to myself, of course,) that I did not know what even to reasonably anticipate; but having full confidence in the ability of my patient to meet all the requirements of the labor, even to its completion, I could well afford to wait, and after neither a very hard nor yet a protracted labor my patient was delivered of a female baby, well developed in every respect, except the head, neck, and upper portion of the spinal column. The mouth was small and pouting, the eyes were well enough developed, but above the supra-orbital plates there were no cranial bones; the ears were well formed and in their normal positions, a belt of scalp extending, as it were, across the upper end of the body and covered with black hair which curled beautifully around each ear. As the neck was entirely wanting, the sternum extended to near the chin, which seemed to rest upon its superior extremity, and formed a point farther than any other from the lower extremity of the body. From the supra-dorsal (the cervical vertebræ were wanting) to about the middle of the lumbar region of the spine, that column presented three instead of one ridge or row of processes, the central having nearly the normal appearance, while the right and left lateral were irregularly curved outward and upward as the body lay on its anterior aspect. Situated at the superior extremity of this triple column, and upon its posterior aspect, was a small quantity of brain substance, resembling the cerebrum. The cerebellum and medulla oblongata were not discoverable."

This was the condition in which nature ushered into the world a human being, as is seen from the above notes. All the contents of the encephalon were entirely wanting, except a rudimentary cerebrum; and that the foetus was living to within a short time of its birth is evident from its almost perfect bodily development, as well as the evidence of motion felt by the mother a few moments prior to its birth. The thoracic and abdominal viscera were not examined, but to all external appearances were well developed and perfect.

My object in making a report of this case, in the first place, is, its rare occurrence, and second, to invite the views of others in regard to this class of cases. One point I wish to arrive at is, upon what physiological principle can the want of development of so

important a part of the body as the head, be accounted for? or can it be accounted for physiologically at all? I am aware that the members of our profession are loth to believe, and in fact almost entirely discredit, the influences that are commonly considered as the cause of the so-called "birth marks." Are we authorized to entertain the belief that there are scientific causes why the process of development should be arrested in some part of the fœtus in utero, and the full and perfect work completed in the remaining parts? In the case before us there seems to have been an overwork performed in the one part, (the triple row of spinal processes), and an entire absence of others, (the cranial bones, with a part of their contents.) Have the influences brought to bear on the mind during the period of gestation anything definite to do in controlling the development of the fœtus in utero? If this be conceded, another very important query arises, What class of emotions will arrest or retard the perfect formation of an arm, leg, finger, or toe? and what to prevent the development of brain, bone, etc., etc.? or what to produce a supplemental member, as a finger or toe? Have these queries a satisfactory solution in science, if we but had the key?

Progress in Medical Sciences.

ARTICLE I.—*Neuro Pathology and Psychological Medicine.* By
WALTER HAY, M.D., Adjunct Professor Theory and Practice, Lecturer on Diseases of the Brain and Nervous System, in Rush Medical College.

1. *Mendel on Typhus and Diseases of the Mind.* (Berliner Medizinischer Wochenschrift, Sept. 23, 1873. London Medical Record, Nov. 19, 1873.)

2. *Eulenberg on Lesions of Innervation apparently due to Ill-Usage.* (Berliner Klinische Wochenschrift, Sept. 23. London Medical Record, November 19, 1873.)

3. *Vertigo ab Aure lesa, La Maladie de Meniere* Clinique Medicale. Hospice de la Salpetriere. M. CHARCOT.

4. *Recherches Experimentale sur la Physiologie et la Pathologie Cerebrale.* Par le Docteur DAVID FERRIER, Professeur de Medecine Legale au King's College de Londres: Le Progres Medecale.

5. *Accommodation for the Insane on the Cottage Plan.* By WINTHROP B. HALLOCK, Assistant Physician to the Connecticut Hospital for the Insane. (New York Medical Journal.)

1. Dr. Mendel considers the relations between typhus fever and insanity from three points: (1.) The differential diagnosis; (2.) Typhus as a cause of insanity; and (3.) The influence of typhus upon existing brain disease.

(1.) The diagnosis must be established by the thermometer; the characteristic temperature—curves of typhus—rising in the morning from 37° to 38.5° , and in the evening from 40° to 40.7° (cent.)—do not appear in brain diseases.

(2.) Typhus, more frequently than other acute diseases, causes insanity, in consequence of the psychical and special organic changes accompanying it. The cases generally recover, although hallucinations may persist after the re-establishment of normal temperature. The brain symptoms occurring at the close of an attack of typhus are more urgent, and may take the form of the transitory delirium of inanition or collapse, or that of gradually developing mental disease, ending frequently in destructive lesion of the brain and consequent dementia.

The proportion of violent cases of insanity thus originating is estimated, variously, by Nasse, Schlager and Jacobi, at 2.3, 4.4 and 12.3 per cent. respectively.

(3.) Mental disease has occasionally been cured by an intercurrent attack of typhus. Bach saw ten out of eleven, and Schlager six out of eleven cases, so recover; apparently resulting from anæmia occasioned by a diminution in the circulation in the membranes of the brain. These recoveries, however, are generally temporary.

2. Dr. Eulenberg exhibited to the Hufeland Association a child eleven years old, who had been maltreated at school by blows on the head, plucking out the hair, etc., the result being epileptic vertigo, great pain in the occiput, hyperæsthesia of the nerves of sensation, etc. There were bald spots upon the scalp, which after tonic treatment and shaving, were replaced by snow-white hair, the whiteness depending on absence of pigment. Moritz Kohn speaks of alopecia areata as a trophic neurosis, as shown by its

heredity, its sudden appearance and disappearance, its extension peripherally, and its connection with other nerve lesions.

Wilson saw a case where neuralgia of the head preceded the area. Wyss saw one in a boy who was taking arsenic; but on stoppage of the medicine the area vanished. Cusp, Todd, Anstie, and others, have noticed alopecia in nervous diseases. Eulenberg reports a case of right-sided supra-orbital neuralgia, with the eyebrow white over the supra-orbital foramen, and a corresponding streak of hair on the head whitened.

3. M. Charcot, the lecturer, calls especial attention to certain symptoms which while differing from those usually present in this disease, he regards as pathognomonic. These are, first, the intermittent or rather the paroxysmal character of the vertiginous attacks, their anticipation by a loud whistling (like that of a locomotive) noise in the ear, and their sudden cessation. Triquet, Saissy, Viricel, Trousseau, and Meniere, have all associated the vertigo with noises in one or both ears; they have referred to them as continuous. Charcot insists that the vertigo manifests paroxysmal exacerbations, invariably preceded by the loud sounds, which cease with its access in recent cases; these troublesome symptoms sooner or later being relieved by the supervision of deafness.

Another symptom upon which the lecturer dwells with emphasis, is the sensation (subjective wholly) of rotation, either upon a transverse axis (trapeze movement) or upon a vertical one. These subjective sensations frequently result in the fall of the patient.

He suggests, moreover, as the results of his own experience, the application of the actual cautery to the mastoid process.

4. This new series of experiments to determine the functions of different portions of the brain, confirms, for the most part, those already performed. Thus, for example, irritation of the middle external convolution, behind the furrow limiting the frontal region, induces elevation and retraction of the right ear, and elevation of the lower eyelid. A little in front of this point, irritation induces a drawing upward of the right cheek, forced contraction of the eyelids, and especially depression downward and outward of the right eye.

Irritation of the gyrus sigmoid behind the crucial furrow induces elevation of the right shoulder, with a slight movement—adduction—of the right fore paw, (of the cat), followed by choreic movements of the same parts during one or two minutes, being simply rapid repetitions of the original movements.

Irritation of the parietal regions induced rotation of the head. Irritation of the recurved portions of the external convolutions induced no movements, but extorted cries of pain.

Irritation of the anterior extremities of the infra- and supra-sylvian frontal convolutions induced the opening of the mouth, its seizure with clonic convulsions, and the projection direct forward of the tongue, the animal crying with anger and pain, and agitating his tail. Movements made so distinctly and so frequently indicated clearly the region in which they were centralized.

These movements were reproduced exactly, after the induction of profound stupor by chloroform, though without the cries.

Irritation of the posterior region of the fissure of Sylvius induced instant and violent closing of the jaws, which could thus be opened and closed alternately by irritation of the first or second region.

One of the electrodes being placed at the anterior extremity of the external superior convolution, and the other at the orbital extremity of the last frontal, and of the supra-sylvian convolutions, the head was thrown back, the jaws opened convulsively to their whole extent, and the tongue moved as before.

Similar experiments resulted thus :

(1.) The electrodes applied to the sigmoid gyrus of the frontal division of the external frontal convolution, induced *adduction of the fore paw from the right side.*

(2.) The electrodes moved a little forward upon the same gyrus, induced *elevation of the right shoulder, adduction of the right paw, with extension of the great toes. The hind paw of the right side was also bent and drawn forward.* The cessation of the stimulations, after several repetitions, was followed by a unilateral epileptic attack, characterized by spasms of the right eyelids, elevations of the right shoulder, and convulsive erections of the tail.

(3.) The electrodes at the extremity of the horizontal division of the crucial furrow, induced *rotation of the head toward the right shoulder.*

(4.) Electrization of a point upon the anterior limb of the sigmoid gyrus of the superior external convolution, induced immediately elevation of the right eyebrow and eyelid.

The intensity of the current was only such as permitted the electrodes to be borne at the tip of the tongue without pain.

(5.) Electrization of the posterior extremity of the frontal division of the middle external convolution, induced forcible closure of the right eye, and attraction of the head to the right.

(6.) Electrization of the middle of the same convolution, induced *results similar to the last.*

(7.) Electrodes being advanced a little upon the same convolution, induced *same effects.*

(8.) Applied to posterior extremity of the frontal division of the external inferior convolution, *with same result.*

(9.) Applied to superior external convolution, behind the sigmoid gyrus, *the tail was first moved from side to side, then elevated, and remained rigid. Contractions of the external muscles of the right thigh occurred.*

Here ensued an epileptic attack, with convulsions limited to the muscles involved in the experiments.

(10.) Electrization of the external superior convolution, at a point behind the caudal nervous centre, elicited only outcries of pain.

The analysis of these observations will be continued in a future number of the JOURNAL.

5. Dr. Hallock objects, with good reason, to the accumulation of large numbers of insane patients in single buildings, but urges the advantages of providing detached buildings of small size—cottages, so called—to accommodate thirty patients each, under the care of two attendants.

The advantages are asserted to be, diminished cost of construction and also of maintenance, whereby provision could be made for a much larger number of insane than by the present costly system; and this is a strong point in the Doctor's argument—the proportion of insane being estimated to be one in 1,700 annually, of which number one-fourth need hospital accommodation (this estimate seems very small.)

Another advantage claimed is, economy of space and labor. All

these, of course, are important, and yet entirely subsidiary to the improvement in hygiene, in facility of management, and in prospect of recovery thereby secured. The plan is apparently an effort in the right direction, and, while liable to objections, has sufficient advantages to entitle it to a fair trial, more especially as it might be made without essential alteration in the annual estimates for these charities, or in the personnel of their administration.

The ordinary mode of consigning diseased brains to the almost exclusive association of other diseased brains, has in it an element of absurdity, when their curative treatment is kept in view; and while removal from their accustomed surroundings, and the supervision of expert care is essential to the curative treatment of the insane, it seems that we have by no means accomplished the best for them when we shall have consigned them to a large asylum for lunatics.

ARTICLE II.—*Report on Obstetrics and Gynecology.* By A. REEVES JACKSON, M.D., Lecturer on Gynecology, Rush Medical College, Chicago.

1. *Fortnightly Hemorrhage during Pregnancy.* By Dr. S. HAYNES. (Brit. Medical Journal, Nov. 29, 1873. American Journal of the Medical Sciences, Jan., 1874.)

2. *The Forceps in Midwifery.* By Dr. JAMES MOORE. (London Lancet, Jan., 1874.)

3. *The Influence of Malposition of the Uterus upon Sterility.* By Dr. HERMANN BEIGEL.* (Obstet. Journal of Great Britain and Ireland, Feb., 1874.)

1. That a sanguineous discharge, having a rhythmic character, may occur during pregnancy, is now admitted by all obstetricians. It is also certain that such cases are not so exceptional as was formerly supposed by most authors. In 1858, Dr. Elsasser published† a contribution upon this topic, founded upon fifty cases, extracted from the records of the Stuttgart Lying-in Hospital, and

* Ueber den Einfluss der Lagereränderungen der Gebärmutter auf die Sterilität, von Dr. Hermann Beigel.

† Monatschrift für Geburts—Kunde. Bd., 73.

said to rest upon the most accurate information. In the fifty cases the discharge occurred in the following manner; once in eight, twice in ten, three times in twelve, four in five, five in six, eight in five, and nine in two. The peculiarities of the rhythm were inquired into in thirteen of the cases. It occurred regularly every four weeks in four, every sixth week in one, and in the others it is not clearly stated. In one case it appeared first in the middle of gestation, and henceforth came on every four weeks, lasting each time three or four days.

The particulars of Dr. Haynes' case were read before the Worcester Medical Society. The patient had eight children, all carried to full time, and born alive, perfect. In all her pregnancies there had been a hemorrhagic uterine discharge, more profuse than her menses, (which were normal in quantity and quality), but of exactly the same nature, every fortnight up to the sixth month, whence, until labor, there was no loss. Each of these discharges was preceded by a few days very severe headache, and was accompanied by severe dorsal pain, and bearing-down sensations. She never had any leucorrhœa. When not pregnant her catamenia were regular, recurring monthly. An abundant bloody discharge, occurring every fortnight, was therefore her test of pregnancy.

Treatment, position and rest had no influence in lessening the amount of the discharge. She does not lose much after confinements, and she presents none of the ordinary indications of the hemorrhagic diathesis.

Dr. Elsasser, in commenting upon the cases reported by him, states that these discharges take place more frequently during the first half of pregnancy, and especially in the early months of this, than during the latter half.

The nature and source of these anomalous discharges have been the subjects of much variance of opinion. If the prevalent theory, which regards the menstrual flow as dependent upon, and an epiphenomenon of ovulation, be correct, then we must look upon these cases as pathological rather than physiological. If, however, as some still maintain, menstruation, or the menstrual flow, is nothing more than a periodical hemorrhage from the lining membrane of the uterine body, not caused by, or necessarily connected with the maturation and dehiscence of the ovule, then we may consider these cases as normal, although exceptional in their character.

During the early months of pregnancy, prior to the occlusion of the cavity of the body of the uterus by the contact and coalescence of the decidua vera and reflexa, there can be no difficulty in understanding that the discharge might proceed from its usual source, the lining membrane of that portion of the organ. This occlusion does not take place until the third month, and prior to that time, the open state of the fallopian tubes and of the cervix uteri present no more obstacles to the exit of the discharge than are present at each ordinary menstrual period.

Dr. H. R. Storer* and Koeberle† have each published a case, in which both ovaries and a large portion of the uterus were removed, yet, in that of the former there appeared, twenty-six days after the operation, a sanguineous effusion, attended by the usual accompanying sensations of menstruation, and in that of the latter "there was no interference with the menstrual flux." Therefore, if a small portion of the cervix uteri may be sufficient to furnish a regular persistent bloody discharge, we may find in the fact a solution of at least some of the cases in which such discharge has been said to continue throughout the entire period of utero-gestation.

2. Dr. Moore maintains that obedience to the rule of the older teachers, that the use of the forceps should not be had recourse to so long as the foetus makes *any* advance, is fraught with evil both to the mother and child. He avers that the cases assisted by the employment of the instrument get about sooner and feel better than the unassisted ones do, and that by its "more frequent and more timely use we would not only lessen the maternal and infantile death rate, but by eliminating all or most of the causes of death and other pathological states, we would bring our patients nearer a healthy standard of recovery."

He concludes by enumerating the classes of cases in which he thinks it justifiable and obligatory to use the forceps, as follows:

(1.) In *all* cases where the first stage of labor is completed and the head stationary in a position favorable for their use. Under these conditions he would not wait longer than two hours.

* *American Journal of the Medical Sciences*, Jan., 1866, p. 110.

† Liegeois on the "Function of Reproduction," Paris, 1869.

(2.) In cases where, though the head is advancing, the labor is tedious, from the fact of the pains being too weak or having almost ceased.

(3.) In cases where the pains are stronger than is warranted by the advance made.

(4.) In hemorrhage, if excessive; and in some cases of convulsions.

(5.) In cases, favorable for operation, where the patient is very desponding or impatient.

(6.) In cases of a tedious nature where there is a rigid fourchette or a lengthened perineum, especially where the pains are not steady in rhythm and force.

(7.) In cases of occipito-posterior positions, unless the labor is advancing quickly.

(8.) The second twin, if a head presentation, and not advancing quickly after the first.

(9.) To save time, if the case is favorable for forceps. In such cases, Dr. Moore does not scruple to use the means at his command, of relieving the woman from travail and himself from work.

3. Dr. Beigel bases his paper upon examinations, made by himself, of 125 sterile women. In 114 of these it was not difficult to assign the cause of the sterility; 34 had some form of malposition of the uterus; 26 had versions; 12, flexions; and 2, prolapsus. A deviation of the uterus from its normal position, whether flexion or version, does not, in itself, cause any impediment to conception; yet such a malposition may render it difficult, since it prevents the onward movements of the spermatozoa. This impediment is not, however, necessarily one which cannot be overcome; but it is otherwise, when, as is not seldom met with in flexion, the anterior lip of the os is longer than the posterior, and is so firmly fixed against the posterior wall as more or less to block up the passage, and thus form a barrier to the advance of any foreign body. Therefore, we must not so much consider the degree of the version as the determining cause of the sterility, as the relation of the lip of the os to the anterior or posterior wall of the vagina, according as we have to do with retro- or ante-version. Likewise, a pronounced bend in the uterus does not *per se* necessitate sterility, for the canal of the uterus may still be permeable; but sterility follows when the flexion is such that the two walls of the cervix, or

of the uterus, are in contact, so that the canal is quite closed. It is in such cases as these that the sterility persists so long as the position of the uterus is such as to close the canal. The author therefore considers that the only rational treatment is to replace the uterus in its normal position. For this purpose he has used, with advantage, an intra-uterine pessary of the following form: It consists of an india-rubber ball, to which a perforated uterine stem is fixed. It is introduced by passing the sound through the tube and the india-rubber ball. After it is in position, the ball is blown up to its proper size, and the tube from it is fixed to a girdle.

ARTICLE III.—*Progress of Surgery.* By JNO. E. OWENS, M.D.,
Lecturer on Surgery, Rush Medical College, Chicago.

1. *Ovariectomy.* By Mr. SPENCER WELLS. (A Biennial Retrospect of Medicine and Surgery for 1871-72. New Sydenham Society, 1873. British Medical Journal, Dec., 1872.)

2. *Ovariectomy on a Child.* By Mr. ALCOCK. (London Lancet, December, 1871.)

3. *Ligation of Pedicle in Ovariectomy.* By Dr. HAYES. (Dublin Quarterly Journal, Nov., 1871.)

4. *Ovariectomy on a Child.* By Dr. W. BARKER. (Philadelphia Medical Times, Nov. 1, 1871, American Journal of the Med. Sciences, Jan., 1872.)

5. *The Present State of our Knowledge of the Pathogenesis of Tumors.* By Prof. S. D. GROSS. (American Journal of the Med. Sciences, Jan., 1874.)

6. *Esmarch's Method of Preventing Hemorrhage During Operations.* (London Lancet, Oct. 11, 1873.)

7. *Growth of Cicatrices.* By Mr. W. ADAMS. (The Practitioner, London, Jan., 1874.)

8. *Treatment of Strangulated Hernia by Aspiration.* By Mr. DUBREUIL, (Medical Times and Gazette, Nov. 22, 1873. The Practitioner, London, Jan., 1874.)

1. Mr. Spencer Wells has lately ("Med.-Chir. Soc.," Nov. 1872) completed the analysis of 500 cases of ovariectomy performed by him. In 25 cases both ovaries were removed at one operation; and there were four cases where ovariectomy was performed twice

on the same patient. The subsequent history of patients who recovered after removal of one ovary proved that they might menstruate regularly, and might bear children of both sexes, or twins; and that, after removal of both ovaries, they did not become excessively fat, nor lose their feminine appearance or sexual instinct.

Of 373 women who recovered, 36 who were unmarried at the time of the operation had married since. Of these, 15 had had one child, 6 two children, 3 three children, 3 four children, and 2 had had twins. Of 259 who were married when the operation was performed, many being beyond the age of child-bearing, 23 had had one or more children since; 17 had died of causes more or less directly connected, and 19 of causes not at all connected, with ovarian disease or the operation, at various periods from a few weeks to eight years after ovariectomy. Mr. Wells stated that unilocular cysts often disappeared after a single tapping. They were frequently not ovarian at all, but connected with the parovarium or broad ligament. His views as to early operations had become modified from those which he at first held. He had found that the results of operations on small tumors in healthy persons were not so favorable as in cases where the cysts were large, and the patients had become accustomed to disease. He did not think it right to remove small ovarian tumors, unless they caused great pain and inconvenience to the patient.

2. Mr. Alcock operated on a child three years old. The tumor was universally adherent. The patient died at the end of forty-eight hours.

3. Dr. Hayes recommends a method for securing the vessels of the pedicle (ovarian), which he calls "the subperitoneal."

The proceeding resembles the subcutaneous ligature of *nævus*. The pedicle is first compressed by a clamp, and a needle, armed with a stout catgut ligature, is passed beneath a good thickness of the serous surface of the pedicle, but superficial to the principal vessels. The needle being withdrawn at the side opposite the point of entrance, is again passed into the aperture of exit, and pushed between the vessels and peritoneal covering on one side of the vessels opposite its first passage, until it can be withdrawn

through the opening made by its first entrance. The ends of the ligature are to be strongly tied and cut off short.

4. Dr. W. Barker has operated on a child aged six years and eight months. The case was one of dermoid cyst of the right ovary. The patient recovered.

5. Prof. Gross thus concludes a paper on "The Present State of our Knowledge of the Pathogenesis of Tumors:":

"All our views in regard to the pathogenesis of tumors are hypothetical, and rest on no solid foundation. No one has hitherto seen, for example, the cell of carcinoma originate from the stable connective-tissue corpuscle, epithelium, or the wandering cell. Conclusions are drawn from the representations afforded by dead tissues; and it is not probable that direct observations will ever be made on this point. Hence it is the duty of the impartial critic to examine the immense mass of enticing views that have been brought forward for the support of the various theories of the development of morbid growths, and adopt that which strikes him as being the least objectionable. Were I disposed to confine myself to a single hypothesis, I should advocate the doctrine that the wandering or mobile connective-tissue cell is directly transformed into the tissues which enter into the composition of the neoplasms; not by any independent action of its own, but by the law of analogy of formation. The adoption of such a theory is, however, scarcely warranted by the present unsettled state of our knowledge; so that I am led to sustain the more conservative views of many distinguished observers and experimenters, who teach that all the cells of the organism, whether fixed or mobile, epithelial or connective, investing or secreting, lend their aid in the development of tumors, but with the restriction, on my own part, that the migratory cell is principally concerned, as in the inflammatory process. In other words, the genesis of morbid growths is characterized by the hypernutrition and multiplication of the masses of protoplasm influenced by it, which are, as a rule, direct productions of the vascular and connective-tissue systems."

6. No ill effects of any kind have hitherto been observed (in London) from the use of this contrivance. Although the duration

of the operations has varied from a few minutes up to half an hour, and even more, during the whole of which time the circulation has been completely arrested, no evidence has been afforded of the formation of emboli or thrombi in any cases. But it is one of the possible evils of the device that the prolonged pressure on the vessels and complete stoppage of circulation may, under certain conditions, lead to the formation of a clot, which, on the re-establishment of the circulation, may be carried along the vessels, and arrested in some part of their course, giving rise to circumscribed inflammation or even gangrene. There is also considerable danger in applying the bandage over parts which are inflamed and suppurating, especially if decomposition be going on, lest some of the clots which are found in the blood vessels of the affected parts be detached and forced into the blood current. For such cases it would be well to employ, in addition, a modification of the plan which has been practiced at Edinburgh for the last two or more years, and which consists in suspending the limb for some minutes before the operation, so that the blood may gravitate downward. Then the bandage may be applied at the proximal side of the diseased parts, thus avoiding all risks of septic poisoning or of embolism.

7. Mr. W. Adams, in a paper read before the Medical Society of London, demonstrates that scars made in children grow with the general growth of the body. He exhibited casts taken at different periods of life, in some of which a growth of as much as an inch had taken place in the course of six or seven years. After deep wounds, or when a portion of skin has been destroyed, the cicatrix appears to be persistent through life. Although all cicatrices, at the time of their formation, are much less than the wounds from which they result, still if the wounds should be made in early childhood, the resulting cicatrix will be, at the completion of growth, very much larger than the original wound; but cicatrices of wounds made after the completion of growth maintain through life the same proportions. With regard to the wearing out of scars, Mr. Adams thinks that those scars only wear out which result from superficial cuts which do not penetrate fairly through the deep layers of the skin into the subcutaneous fat.

8. Mr. Dubreuil has recently read a report or paper by M. Dunlafoy on the treatment of strangulated hernia by aspiration. In this he relates twenty-seven cases, showing the great utility of this procedure in many cases and its innocuity in all. It is true it implies that a diseased intestine may be returned, but the same remark applies to the taxis. M. Dubreuil, in a discussion which followed the reading of the paper, stated that he could not accept all the conclusions of the author. He did not admit that aspiratory puncture should be the first means resorted to, believing that moderate taxis, which is always inoffensive, should first be tried; but he did not hesitate to recognize that aspiration constitutes a real advance in the treatment of strangulated hernia. Both M. M. Verneuil and Trilat also admitted that in certain cases aspiration is very useful, as when the strangulated hernia is complicated by effusion into the sac, the withdrawal of this liquid by aspiration much facilitates exact diagnosis, and allows of a hernia being reduced which had previously resisted numerous efforts by the taxis. This can be brought to bear directly upon the intestine, which is no longer marked by the presence of the liquid. Aspiration thus at once becomes explorative and curative. M. Trilat took the same view of the operation, but M. Lee stated his opinion that all that is necessary may be effected by means of a trocar. M. Verneuil pointed out that the evacuation of the liquid by a fine trocar is a matter of difficulty, whilst it is easily accomplished by aspiration. M. Despres, the irreconcilable adversary of aspiration, predicted for it a similar failure. In his opinion there is no other treatment for strangulated hernia than operating.

Hospital Reports.

Woman's Hospital of the State of Illinois. Sub-Involution—Endometritis—Displacement. By W. C. LYMAN, M.D., Assistant Surgeon to the Hospital.

In presenting the following abstract of cases treated at the Woman's Hospital, we wish to state that we have taken a number of average or type cases of several forms of disease peculiar to women, and those that were treated long and connectedly enough to

arrive at some conclusion as to the length of time, the method, and the result of the treatment; leaving entirely out of consideration those cases that were under observation but a short time, and that were so irregular in attendance that no value can be placed upon the result, whatever it may have been.

We will first consider cases of sub-involution—five in number. Of these, the time that had elapsed subsequent to parturition varies from about three months to six years. The ages vary from twenty-three to thirty-five years; the average age, twenty-nine years. Length of time under treatment, from two to twenty months; average period, five months. Number of local applications, ranges from four to fifty-nine; average number, eighteen.

The method of treatment adopted in these cases was practically the same, and an abstract of the record on the hospital journal of one or more cases will sufficiently illustrate it.

Case 1. Mrs. M.; age thirty; thirteen years married; has had two children, the youngest about four years of age; has never been well since last confinement; at the present time is generally debilitated, dyspeptic, and has palpitation of the heart on slight exertion; pain in loins; copious leucorrhœa; inability to walk, except very short distances; menstrual function regular each three weeks, occasionally copious, and always painful for the past three years.

Physical examination showed the womb low down in the pelvis, os externum patulous, whole cervix apparently increased in size, and copious tenacious mucus bathing all parts within the field of the speculum.

The sound showed the uterine cavity nearly normal in direction, but three and one-fourth inches in depth, the canal of the cervix wide, and the os internum easily passed. The retraction of the sound was followed by considerable mucus, streaked with blood; a granular condition could be observed just within the enlarged and dilated cervix.

The local treatment in the case was begun by the application of nitric acid to the interior of cervix and body of the organ, followed by the application of glycerine, and a cotton ball pessary saturated with glycerine, to remain in contact with the cervix till the following day. The application was attended by some pain, and a slight hemorrhage, both of which subsided without any special treatment except recumbency.

This patient was treated twice weekly for two weeks with a solution of tannin in glycerine, one part to two, applied to interior of cervix and body, and upon external parts of the cervix. Upon examination at that time, a perceptible diminution in size of the cervix, a diminished depth of the uterine cavity, and less mucous discharge, were to be observed.

Application was again made of the nitric acid by the same method as before, followed by a series of bi-weekly applications of Lugal's solution of iodine and glycerine for four weeks, omitting a week in which a menstrual period occurred, with less than the usual amount of pain, and less in quantity of leucorrhœa; in short, it approached her former natural and healthy periods in general character.

Then followed a third application of nitric acid, and another course of bi-weekly applications of the solution of tannin, or of iodine, or of tincture chloride of iron, as the appearance of the case seemed to demand at the time of application.

At the end of three weeks more, the patient had passed another period, regular as to time, quantity, and character.

The cervix appeared healthy, and the uterine cavity was restored to its natural depth, involution being completed by surgical aid.

We next come to consider twenty-six cases of endometritis. The inflammatory effects being apparent in the cervix and body of the uterus, and a small number (six) being attended by ulceration or erosion about the margin of the os externum, the disease being wholly within the cavity of cervix or body generally.

Of these, sixteen were married, and ten single. Their ages ranged from twenty-one to forty-three years; average age, thirty-one years. The number of applications ranged from six to forty-eight; average number, twenty-one. Period under treatment ranged from one to twenty months; average period, a fraction under four months.

To correctly set forth the method of treatment pursued in these cases, I will again quote from the hospital record:

Case 2. Mrs. S.; age forty-two years; number of pregnancies ten, of which six were abortions; inclined to hysteria; is thin, dyspeptic, and irritable; complains of pain in back in ovarian region and down the thighs, and upon sexual intercourse; is subject to

frequent attacks of neuralgia of chest, head, face, and along spinal column.

Examination with speculum shows a glairy mucous discharge from the os uteri, with an areola of heightened color around it; a somewhat enlarged cervix.

Digital examination shows only a tenderness of cervix, with induration and hyperplasia.

The sound is passed only with pain and difficulty through the os internum. The presence of clots in the monthly discharge argues the presence of inflammation in the body as well as neck of the organ.

Treatment: Churchill's tincture of iodine to interior of cervix and body of the uterus; cotton ball pessary, saturated with glycerine, left in the vagina till the following day. This was June 22nd. Treatment repeated on the 26th, on July 3rd, 13th, 17th, 23rd, 26th and 30th, and Aug. 8th, 11th, 17th, and 21st. A solution of tannin in glycerine (one part in four) was applied in similar manner on the 24th, 28th, and 31st, and Sept. 7th, 11th, and 18th. Oct. 2nd resumed the tincture of iodine, which was applied Oct. 9th, 12th, 16th, and 23rd—making, in all, twenty-four applications, when the patient was discharged, and was able to pursue her employment through the succeeding autumn and winter with ease and comfort.

Case 3. Mrs. D., native of U. S.; age 32. First menstruated at thirteen years of age—always profuse, and generally painful; twelve years married without conception, although no effort has been made to avoid it. At present, the periods are regular but painful; has gelatinoid leucorrhœa, pain along spinal column, and in pelvis, and often down the course of sciatic and crural nerves; frequent tenderness of back of neck, and neuralgia of the same part. General symptoms of debility, nervous excitability, and cardiac irritability.

Speculum reveals little beyond a gelatiniform discharge from the cervix. Digital examination shows a tender and unduly hard condition of the cervix, with perhaps a very slight degree of prolapsus.

The general treatment adopted was principally mineral acids, with some vegetable bitters and afterwards some chalybeates.

The local treatment adopted was Churchill's tincture of iodine with glycerine, applied to interior of cervix by the application wrapped in cotton, twice weekly, from Aug. 21st to Dec. 1st.

A gradual amelioration of the symptoms enabled this patient to resume the active duties of a housekeeper with entire comfort, at this period.

Case 4. Mrs. S., native of U. S.; age 32; ten years married, has had two children—pregnancy prevented by use of tepid water for several years. Has pain in left hip, ovarian neuralgia, and leucorrhœa. Speculum and sound show superficial ulceration about the os externum, the result of inflammation of the lining of the cervix, which seems to have spread a little from continuity of tissue. Two or three applications of a saturated solution of nitrate of silver, followed by the use of the iodine, the tannin or a weaker solution of the nitrate, twice weekly, from Aug. 24th to Nov. 1st, resulted in so much of improvement that ultimate recovery was certain, when the patient failed to appear at the clinic, having left without being formally discharged.

We now will consider cases (seven in number) where variation from the normal position of the organ in question, is a special symptom, and the result of the same kind of inflammatory process. Of these, the greater part were treated without any mechanical support, and with a view of reducing the inflammatory condition which appeared to be the key to the difficulty. Of the above number five were married and two single. Average time of treatment, three and one-half months; average number of applications, sixteen; average age, twenty-four years.

Case 5. Mrs. H., age 20; of foreign birth; has enjoyed good health till within the past year; complains, at present, of pain in back and in the region of the womb; menstruation regular but painful. Has discharges from the vagina, of thick, tenacious, nearly transparent mucus. Speculum showed cervix turned to the left. The sound developed combined lateral and posterior flexion, considered to be due to a greater degree of inflammatory thickening of the opposite side of the organ, thereby its elongation by this means destroying the symmetry of it.

Has sanguineous discharge following the most careful introduction of the sound into the uterine cavity.

The treatment of this case was the cessation of household work and the use of a thirty-grain solution of nitrate of silver introduced into the cavity of the cervix and body twice each week, with a

cotton ball tampon left in the vagina. This method, continued for about twelve weeks, restored the natural position of the organ, and relieved the distress in the pelvis and back. The patient was enabled in much less than the above time to resume her ordinary duties as housekeeper, but continued the applications till recovered.

Especially in a case of long standing where there was decided prolapsus with an inflammatory enlargement, and increased weight of the whole organ, the use of Hodge's closed lever pessary contributed largely to the relief of the symptoms and undoubtedly promoted recovery.

In submitting the foregoing we have endeavored to avoid detail, and arrive at facts and conclusions as far as possible.

We may add that whenever any special symptoms, such as constipation, dyspepsia, neuralgia, palpitation or hæmorrhoids, have been present, treatment of general character has been adopted, of which any special notice will hardly be appropriate, as it is foreign to the purpose of this report.

NO. 119 22ND STREET, CHICAGO.

Clinics.

Trichinosis. *A Clinical Lecture, in Rush Medical College, March 4th, 1874.* By NORMAN BRIDGE, M.D., Lecturer on Practice of Medicine.

(SYNOPSIS.)

This patient, a farmer from Iowa, apparently about 33 years old, comes to Chicago for advice regarding his disease, which has been pronounced trichinosis. Thirteen weeks ago he ate two thin slices of raw, unsmoked ham. In two days he began to have diarrhea which soon became severe, and in three days he was attacked with vomiting. The diarrhea continues in a milder form to the present time; the vomiting only lasted a few days.

In little more than a week after the eating of the meat, he began to experience dull pain in the muscles of the chest, shoulders, arms and back. Some days later he had pain in the thighs, throat and neck, but at no time was it at all severe, and there was no pain

in the hands or feet. The painful muscles were made more painful on motion, and the patient avoided this as much as possible. He remained in bed five weeks, during much of which time he was obliged to be moved by attendants.

There was profuse perspiration, but I cannot learn that he had any considerable œdema of any part of the body. He thinks that at one time he suffered pain in his eyes on opening them widely or raising them to look upward, and for a short time his throat suffered pain by talking, and the muscles of respiration were painful with every inspiration. He lost his appetite entirely, had great thirst, and slept badly. He protests that his mind was perfectly clear the whole of the time, and that he remembers distinctly every step in his sickness.

After remaining in bed five weeks he had so far improved in strength as to be able to sit up. His appetite had improved, the sweating was less, the thirst had decreased, and what œdema had existed was gone. He felt now an inordinate hankering for pork. Not being yet aware of the nature of his complaint, he *partially* broiled a slice of ham, made a sandwich and ate it. In two or three days he had a relapse, his œdema now became extensive, the diarrhea and vomiting returned; indeed, all the bad symptoms again appeared, and in due time the pains in his muscles were exaggerated and more extensive. In ten days he began again to improve, since which time his amelioration has been steady. Now he is able to walk slowly, looks well and has an appetite, yet he declares he is never without pain in his arms, shoulders and back, and that if he exercises his legs much they are painful. Forcible contraction of the quadriceps muscle of the thigh causes acute suffering. The diarrhea still continues.

Now, in many regards this is a typical case; in some, it seems not. You are aware that the disease is due to the little worm *trichina*. It is taken in raw meat, being imbedded in the muscle in a half-developed form. In two days after it is liberated in the stomach it becomes sexually mature, and in six days each female casts forth several hundred young worms which immediately begin their wanderings. In a short time they make their presence in the muscles known by dull, steady pain. They have a preference for the muscles, and particularly for the points where muscle merges into tendon. We are told by authors, that the worms migrate

by crawling; in view of the fact that many muscles and those even at the extremities become painful at once, almost, I am not satisfied with the theory that the worms move only by crawling. How can they crawl such a distance in a few hours? What other means of migration have they except that of the circulation? It is natural for me to suppose that many of them find their way into the small vessels and are carried rapidly onward.

In fourteen days we are told the new brood of animals have attained the length of their progenitors when they entered the stomach. They coil themselves securely up in the muscles and are soon surrounded by fibrous cysts, which in many cases sooner or later become calcareous. The patient is cured by having strength to live and bear the irritation of the animals until this imbedding process is completed and the injured muscles are healed. During this time many of the symptoms detailed to us by this patient always occur. Death takes place in about twenty per cent. of cases, and in from one to five weeks.

In the fact of vomiting, purging, pain, and perspiration, the patient before us is a typical case. But his case is peculiar in the very long continuance of diarrhea. The extent of surface that has been painful is small, and he had little cedema or none until his relapse. These facts probably indicate that not a large number of worms have invaded his muscles. How much his violent vomiting and purging had to do in getting rid of the worms while in the alimentary canal we cannot say; doubtless they were beneficial.

I fail to see any reason for the continuance of his diarrhea except in the injury done to the mucous membrane. However, the general systemic irritation might lead to this result; certainly injured muscles—in the intestinal wall or elsewhere—do not tend to contract spontaneously or at all.

An occasional symptom of trichinosis is frequent micturition; this patient has not had it, but it appeared in several of the cases attacked at the same time with himself; while in one of these cases—that of his sister, now very low—frequent vomiting has continued as well as diarrhea, so that it is well nigh impossible to nourish the patient.

Although diarrhea is written down as a constant attendant on this disorder, it is not so. I have seen one case—a dispensary case

in this city some years ago—in which the bowels were constipated, insomuch that oil was given to move them; neither was there any vomiting. Yet in this case the trichinæ were so numerous that a piece of muscle the size of a wheat kernel cut from the biceps contained ten of the animals. This would give to a cubic inch of muscle a number not less than five thousand. I could not learn that a large amount of infected meat had been eaten, only a small piece of some sausage, still the swarms of trichinæ were so great that not a muscle of the patient's body could be touched without causing pain, nor could he move one of them without suffering. He had œdema over the whole body, some perspiration, a low fever, and died on the thirtieth day.

It seems in this case fair to infer that the great number of trichinæ in the muscles was due in some measure to the fact that none of them were carried out of the system by vomiting or purging. The patient now before us evidently swallowed a great many more of the cysticerci than the man who died, yet he is alive and able to walk.

So far as prophylaxis is concerned it is sufficient for this patient to know that a heat of 160° F. kills the trichinæ, and that hence if all the meat he eats has been heated to the boiling point there will be no danger of infection.

What can we advise as to treatment? Many remedies have been used; benzine, sulphites, carbolic acid. But there is no proof that any treatment has done good except such sustaining measures as will keep the patient alive until the worms are encysted. Tonics, nutrients, stimulants, and anodynes, are known to be valuable; no other remedies are. We know of nothing that will kill the worms after they leave the alimentary canal for the tissues, without killing the patient; it seems inevitable that if the patient recovers, it must be with the worms encysted. If we could hasten this encysting process the recovery would be facilitated. Can we do this? Can we hasten the calcifying process?

Prof. Allen has suggested the possibility of doing it by surcharging the blood with phosphate of lime. The idea is theoretically correct, and this patient will be sent home with the advice to take as much lime water and milk (equal parts) as he can, for nourishment, and to drink between the doses sweetened water acidulated with phosphoric acid. This will furnish a bland, nour-

ishing diet, and one very salutary in its effect on the diarrhea, while there is taken a mineral acid tonic. The treatment is good, whether it effects the process of encysting or not.

Of course, the most valuable treatment would be emetics and purgatives, to hasten the expulsion of the worms before they have passed out of the alimentary canal into the tissues. But this we are seldom able to administer, for cases are not usually diagnosed until the pains in the muscles are pronounced.

Reports of Societies.

Chicago Society of Physicians and Surgeons. Transactions at Meeting of March 9, 1874. Reported by the Secretary.

The Society met, as usual, in the parlor of the Grand Pacific Hotel, the President in the Chair. The minutes of the preceding meeting were read and approved. Dr. R. H. Bingham, of Castleton Medical College, N. Sk., Class of 1850, was unanimously elected to membership; and the name of Dr. C. T. Parkes, Demonstrator of Anatomy, Rush Medical College, was proposed for consideration of the Censors by Dr. J. E. Owens.

Dr. W. C. Lyman then read an Abstract of Cases treated in the Woman's Hospital of the State of Illinois during the year 1873.* The reading of the abstract was succeeded by some discussion of the treatment pursued.

Dr. P. S. Hayes then read that portion of the Annual Report of the Section on Pathology, having regard to the nervous system. The report was exhaustive of such published material as appeared during the preceding year on the pathology of disorders of nerves and of tissues eminently controlled by the spinal or sympathetic systems. The report was, on motion, accepted.

Dr. John E. Owens, by request of several members, made a verbal report of an operation for disease of the ovary, recently performed by him in St. Luke's Hospital. The report was necessarily imperfect, since the case had not yet been dismissed.

The patient, a female over fifty years of age, and multiparous, presented herself with enlargement of the abdomen to the extent of the distension in pregnancy at the eighth month. The mobility of the mass, subjacent to the abdominal parietes, indicated its non-

* This abstract appears in the pages of the CHICAGO MEDICAL JOURNAL for April, 1874.

attachment to the walls, and the duration of its existence for the previous seven to nine months, seemed to preclude the formation of any firm adhesions to the contiguous viscera. Ether was administered—a small amount of chloroform being added temporarily, as the complete anæsthetic condition was unusually deferred—and an incision carried from just below the umbilicus, to a distance of six or seven inches, exactly in the mesial line. A very few drops of blood were sponged away—as the abdominal walls were greatly attenuated—and the tumor of the ovary exposed. At this point one of its multilocular cysts ruptured, when the patient was at once laid upon her side, and the cystic contents—a substance of the general appearance and tenacity of calves' foot jelly—escaped into a basin—none of it entering the abdominal cavity. The tumor was then readily turned out of its resting place, and its pedicle secured in situ by a clamp. The entire mass was found to consist of a material similar to that already described—presenting the phenomena of colloid degeneration of the ovary in exceedingly typical aspect. A similar degeneration was found to have occurred in the vermiform appendix, the latter having become enlarged to a sextuple dimension, and presenting upon its external aspect minute, cyst-like collections of similar colloid material. The external surface of the small intestine was inflamed to such an extent as to resemble the condition of "granular lids." The lips of the wound were brought together so that the peritoneal surfaces were opposed, and an opening left at the lower extremity into which a pledget of lint was inserted, in order that subsequently, if needful, intra-abdominal injections might be employed. This procedure was, however, found to be unnecessary, as the entire wound has now (10th day) completely closed, and the patient has so far exhibited a very satisfactory condition. The pulse has ranged from 70 to 100 per minute, and the temperature from 98° to 103° F., the exceptional elevation noted having been occasioned by the excitement incident to change of clothing and bedding.

A superficial examination of the morbid material contained in the ovarian cysts, made under the microscope by Dr. I. N. Danforth, revealed the presence of trabeculæ, described by Paget as "fibrous white cords, or thin membranes, arranged as in the areolar tissue, or in a wide-meshed net-work."

The narration of the details of this case elicited a brief discussion.

The speaker (Dr. Owens) then read the following abstract of cases occurring in St. Luke's Hospital:

I. Parietal Gaseous Abscess of the Abdomen.

The formation of abscess in the walls of the abdomen is of unfrequent occurrence. The matter may be superficial, it may

collect between the layers of muscles, or lastly, between the latter structures and the peritoneum. Some are connected with disease within the cavity; others again are uncomplicated. When deep-seated the abscess is said to imbibe gas from the intestinal tube, which is very apt, as the disease advances, to become adherent to the posterior wall of the abscess.* When deep-seated, muscles and aponeuroses bind down the pus, and it is consequently a long time in coming to the surface.

September 17th, 1873, an unmarried girl, aged nineteen years, was admitted to St. Luke's Hospital, with vaginitis. The case was complicated by a somewhat diffused inflammatory induration and swelling situated in the lower part of the abdomen on the left side. This swelling began about a month previous to the patient's admission to the hospital. By means of pressure by the bandage these signs of inflammation had so far subsided that the patient was discharged Oct. 6. The animal functions were apparently normal.

December 2nd, probably at least three and a half months from the beginning of the inflammation, and two and a half months after her discharge, the patient was re-admitted to the hospital. She had been at work; the inflammation had grown more diffuse, swelling, induration and pain were prominent symptoms, and inflammatory fever had already supervened.

The patient having been put to bed, fomentations were applied to the part, and morphia administered in sufficient quantity to allay pain. The inflammation was limited below by Poupart's ligament; internally, by the linea-alba; superiorly, by a transverse line passing through the umbilicus; externally, by a line touching the anterior-superior-spinous process.

Four or five days subsequent to re-admission, a soft spot was discovered, in which one could place the end of the fore finger. That the little cavity contained pus was pretty certain. It possessed also an unusual element in its contents, viz., a bubble of gas. The following day the cavity had enlarged, and the quantity of pus and gas had proportionately increased. Upon manipulation the bubbling was both felt and heard. Percussion yielded, not the usual flat sound of an abscess, but the tympanitic sound of gas accumulation. So far as operative interference was concerned, nature was left to take her course, and this plan is a good one, especially, if the pus shows a disposition to come to the surface. Gradually the cavity enlarged; pus and gas became more abundant, and in ten days from the date of re-admission the cuticle sloughed, giving exit to a large quantity of offensive sanious pus, and very offensive gas (sulphuretted hydrogen). Convalescence was rapid, and the patient was discharged December 23rd.

* Gross.

II. Empyema—Paracentesis—Great Improvement from the use of Drainage Tube.

M. O. Heydock, M.D., in charge of the medical wards of the hospital, and in charge of this patient, has kindly furnished me the following notes in the case :

"Charles Sparks, aged twenty-one years, was admitted into St. Luke's Hospital, February 22nd, 1872, and gave the history of a recent attack of pleuro-pneumonia. The characteristic signs attendant upon the presence of fluid in the pleural cavity were easily recognized. He was subjected to the treatment ordinarily resorted to, under like conditions, until May 17th. At this time the vital powers were rapidly failing. Hectic, emaciation, diarrhœa, and oppressed breathing, foreshadowed a fatal issue, and as a last resort, paracentesis was performed by Dr. Owens, giving exit to five pints of pus. On the 23rd of the same month a second operation was performed, giving exit to two pints of pus. A drainage tube was introduced, and the cavity daily washed out with a weak solution of carbolic acid in water. The discharge gradually diminished in quantity, and there was in all respects a remarkable change for the better in the condition of the patient. Under the influence of good diet and tonics, as iron, quinine and cod liver oil, June 8th found him walking about the wards of the hospital, and July 20th out of doors, the discharge at this time being some two ounces of pus per day.

"July 30th it was thought best to remove the drainage tube, lest its presence might be operating as a seaton, and in a degree, at least, furnish an explanation why this amount escaped daily. The upper orifice rapidly closed, and the discharge from the lower grew small in quantity. During the month of August he convalesced rapidly. Early in September the discharge grew thin and offensive, the patient lost his appetite, diarrhœa and night sweats set in, and rapid emaciation followed. There was tenderness in the axillary region, bulging and redness of the upper cicatrix, and the condition of the patient more unpromising than at the time of the first operation.

"Recourse was had once more to the knife, exit given to a large quantity of unhealthy pus, and the tube re-introduced September 18th, 1872. Little, if any, constitutional disturbance followed a somewhat tedious operation, during which the patient was under the full influence of an anæsthetic. Hectic and diarrhœa rapidly disappeared, the appetite returned, and soon after the patient was sent home, and from that time until the present—nearly one and a half years—he has worn the drainage tube, and enjoyed, during a very considerable portion of the time, a fair degree of health and strength."

A few days ago the patient was admitted to the surgical wards.

The old tube is growing weak, from having been long bathed in pus, and the patient desires a new one, if necessary. Can the tube be altogether dispensed with? The respiratory murmur can be heard more or less distinctly over the whole extent of the lung posteriorly. The murmur is distinct over the upper part of the chest, but it cannot be detected in ordinary respiration over the lower third of the lung in front, but it can be when forced breathing is employed. Six or eight weeks ago an exfoliation of bone about an inch long was removed by the patient from the anterior orifice. The posterior opening is in the intercostal space of the seventh and eighth ribs, on a line dropped from the posterior border of the axilla. The anterior is located between the third and fourth ribs; immediately above the nipple. The discharge at present does not exceed two ounces daily. The orifice is well washed with a weak solution of carbolic acid.

III. *Amputation According to the Method of Esmarch.*

The stump, left after an amputation of a leg which had been crushed by an injury, exposed the ends of both bones at the bottom of an indolent ulcer, which completely precluded the application of an artificial limb. Re-amputation was performed, after the bloodless method, by encircling the limb with a rubber bandage, each successive turn of which overlapped that which preceded. The elastic tubing was applied immediately upon the last turn of the roller. The leg had been previously suspended, in order to obviate the possibility of the formation of a clot in the vessels, which might induce a thrombosis and subsequent embolism elsewhere. The operation was absolutely bloodless—as much so as in the dissection of a cadaver. Subsequently a very small slough occurred upon the edge of the flaps in the site of an old cicatrix, and where the tissues were superimposed upon a layer of cartilage, no greater, however, than is frequently seen under the most favorable circumstances. The operation, in its issue, was eminently successful.

The discussion of these cases turned mainly upon the question of the propriety of opening abscesses of the abdominal parietes with gaso-purulent contents.

Dr. Jackson asked whether it were well to neglect the golden rule of surgery, to give exit to pus which was obviously seeking an external outlet.

Dr. Merriman asked if there was not danger of such an abscess bursting internally, its contents finding their way into the abdominal cavity.

Dr. Owens thought it well to consider the possibility of the formation of an artificial anus as a sequel to such interference.

Dr. Lyman thought that surgical records might be searched in vain for an instance of such an abscess finding an exit to the

peritoneal cavity, since the process of agglutination of its lining membrane, which proceeds in advance of the approaching abscess, attaches to the latter a coil of adjacent intestine, into which the contents of the tumor necessarily escape.

Dr. Hyde thought that the presence of gas in an abdominal abscess, implied the proximity of an adherent coil of intestine. In purulent and fetid collections in the neighborhood of the rectum, there is generally some rent in the rectal wall, establishing a communication between the cavity of the abscess and the gut; and in cases of abscess of the walls of the abdominal parietes where no gut adhesion has occurred, as in the instances caused by urinary infiltration upward from a false urethral passage, there is ammoniacal fœtor and sloughing, but no gas.

Dr. Wickersham considered that the spontaneous opening of the abscess, when it evidently pointed externally, should be confidently and patiently awaited. He narrated a case, occurring in his own practice, in which a boy fell upon his abdomen while at play, and in two or three days subsequently suffered from dysuria. It was doubtful whether the excruciating pain which he endured, resulted from lesion of the bladder, peritoneum or bowels. So severe was the latter symptom that one-third of a grain of morphia was requisite to procure relief for the little patient, who was but a few years old. The catheter was used twice daily, and was necessitated by the presence of an indurated mass, which soon became detectable, situated, apparently, in a plane posterior to the bladder. In three or four days afterward, fluctuation became evident, and a spontaneous exit of pus occurred at the navel, in quantity equal to three or four tablespoonsful. The pain soon subsided, and the little patient made a good recovery.

Dr. Merriman thought that occasionally there was danger of a spontaneous opening, *both* externally and internally, and cited the case of a lady, then under his professional care. There had been, several years ago, a pelvic abscess which had resulted in such a manner that now, as indeed during the entire period since the occurrence, there were alternate intervals of a few days, in which there were feculent discharges from the bladder and urinous discharges from the rectum.

The Secretary stated, that in his belief a majority of such cases had a history of first, spontaneous bursting of the abscess in one direction, and subsequently, ulceration and irritation from the presence of foreign secretions, sufficient to result in the formation of a counter-opening. He alluded to the testimony of pathological anatomy as bearing upon the question at issue.

The discussion was then closed.

It was resolved, on motion of Dr. Owens, that every member of the Society connected with the staff of a hospital, be added to the "Committee on Clinical Reports."

It was announced, that at an early date, Dr. J. H. Etheridge would read a paper on the "Organic Hydrides," and Dr. John Bartlett would present the "Annual Report of the Section on Pathology."

The Secretary extended an invitation to the members of the Society, from the Chicago College of Pharmacy, to attend the Annual Exercises of the College on the evening of the 10th inst.

The Society then adjourned.

Central Illinois Medical Society.

The Central Illinois Medical Society met in semi-annual session at Clinton, Tuesday, Dec. 9, 1873. Called to order by Dr. W. Hill, of Bloomington, President. Opened with prayer by Rev. Mr. Piper, of Clinton.

Dr. J. Wright, Chairman Committee of Arrangements, in a brief address, bid the Society a thrice hearty welcome to Clinton and Clinton hospitalities; to which Dr. Laughlin, of Bloomington, on the part of the Society, briefly responded.

Minutes of previous meeting read and approved.

T. W. Davis, M.D., of Wapella, D. W. Edmiston, M.D., B. S. Lewis, M.D., of Clinton, J. H. Tyler, M.D., A. L. Norris, M.D., of DeWitt, Elias Wenger, M.D., of Gilman, C. R. Carr, M.D., of Bloomington, J. M. Waters, M.D., of Gibson, were recommended for membership, and Censors reporting favorably, they were duly elected.

Drs. M. G. Parsons, of Jackson county, Hunt, Adams, and Mahern, of Clinton, Axton and Crothers, of Maroa, being present, were invited to participate in the proceedings of the Society.

On motion, adjourned till 2 P. M.

AFTERNOON SESSION.

Called to order by President Hill. Minutes of morning session read and approved.

Dr. Jno. Wright, of Clinton, read an able report on "Puerperal Convulsions." He did not think uræmic poison a cause. He thought blood-letting advisable in some cases; others, not; that different cases require different treatment.

Dr. Pearman, of Champaign, thought sulphate of atropia a good agent to control convulsions. Dr. Miller, of Farmer City, reported a case in which hydrate of chloral, bromid of potassium, and sulph. morph. exercised a very favorable influence over convulsions. Did not think he derived benefit from blood-letting. Dr. Goodbrake, of Clinton, had never seen any benefit derived from blood-letting. His experience warranted the use of chloroform, and, thinking uræmic poison often an exciting cause, would use diuretics. Dr. Parsons, of Jackson county, thought he had

derived great benefit from fluid extract of scutellaria. Dr. Birney, of Urbana, thought uræmic poison an exciting cause.

Dr. S. H. Birney, of Urbana, Chairman of Committee on Surgery, read an interesting report on "Surgery: its Social and Legal Status," in which he spoke at length of malpractice. He thought suits to recover damages were often brought against surgeons by the intervention of meddlesome physicians (so called.) He was much opposed to men not medical sitting as jurymen in suits for malpractice, and thought the laws of the State of Illinois very unjust in requiring so much of surgeons, without allowing them the necessary privileges for obtaining the knowledge necessary to become good surgeons, viz: that of dissecting.

Dr. J. Little, of LeRoy, of Committee on Surgery, read an able report on "Amputation at the Knee Joint." He had performed this operation with the most satisfactory results, and thinks it safer than amputation at the upper joint of the leg, and leaves a better stump for an artificial limb.

Dr. S. H. Birney, Chairman of Committee on Surgery, read an excellent report on "Shock." He had great confidence in the restorative properties of nature. Would not give alcoholic stimulants; if any stimulant, would give ammonia. This report elicited a lively discussion. Drs. Hill, of Bloomington, and Goodbrake, of Clinton, would resort to alcoholic stimulants.

EVENING SESSION.

Called to order at 7 o'clock P. M. by President Hill.

Dr. J. T. Pearman, of Champaign, read a very interesting report on "Practical Medicine," in which he spoke at length of typhoid fever, its cause and treatment. He thinks it is an enteritis, and that turpentine is the sheet anchor in its treatment; that turpentine is as much a specific for typhoid fever as quinine is for intermittent fever. Dr. Goodbrake, of Clinton, thought it was not a self-limited disease; that it need not necessarily run a certain number of weeks.

The hour having arrived for the "Public Address," Dr. T. F. Worrell, of Bloomington (President Illinois State Medical Society), delivered an ably prepared address to a house full of Clintonians, in which he spoke at length of the obligations of physicians to patients, and patients to physicians.

On motion of Dr. C. Goodbrake, the thanks of the Society were respectfully tendered Dr. Worrell, for his able address, and he was requested to furnish a copy of it for publication in the CHICAGO MEDICAL JOURNAL.

Dr. R. G. Laughlin, of Bloomington, Chairman of Committee on Practical Medicine, read a practical and very interesting report on the different diseases met with since the last meeting of the Society, in which he spoke of cholera, in treatment of which he

suggested the use of milk by injection. He also spoke of cholera infantum, yellow fever, typhoid fever, etc. Dr. Worrell advocated very strongly the use of *verat. viride* in treatment of typhoid fever. Dr. Goodbrake thought brandy a better agent for reducing frequency of the pulse.

Dr. C. T. Orner, of Saybrook, read a brief and interesting report on "Obstetrics," in which he made some valuable suggestions to the physician in the lying-in room. He also suggested that in cases of foot and breech presentations, where the body is delivered and head remains undelivered, that "instead of putting the index finger in the mouth, and rounding the body up over the os pubis, that the *left* hand be placed under body of child, and supported on a line nearly level with the body of the woman, while with the right hand, between pains, the child is pressed back against the womb, till the frontal portion of the head strikes the sacral angle; thus producing extreme flexion of the head, and disengaging it from the os pubis." The advantages claimed being the presentation of the short diameters of head, the increased power of the uterus, the prevention of pressure on the cord, and birth of child at first pain. The Doctor supported this method by reporting cases in which he had practiced it with the most satisfactory results; also the experience of his friend, Dr. J. B. Brooks, of Reading, Pa., who had practiced it in a number of cases, and to whom Dr. Orner was under obligations for the above suggestions.

Dr. W. G. Cochran reported a case of monstrosity, in which a child of six months' development was born, with evidence of having been dead some time, with a fleshy tumor in front of the neck, as large as the head of a fully developed fœtus, and, in connection with the placenta, a semi-fleshy mass, which, with placenta, weighed six pounds.

Delegates to American Medical Association: Drs. Elias Wenger, R. G. Laughlin, W. L. Pollock, S. H. Birney, Jno. Wright.

Delegates to State Medical Society: Drs. W. Hill, W. G. Cochran, T. D. Fisher, J. T. Pearman, C. Goodbrake, H. C. Howard.

SPECIAL COMMITTEES.

Surgery.—Drs. H. C. Howard, C. Goodbrake, J. M. Waters.

Practical Medicine.—Drs. T. D. Fisher, W. L. Pollock, E. C. Bartholow.

Obstetrics and Diseases of Women.—Drs. E. Wenger, J. S. Miller, J. L. White.

Microscopy.—Dr. R. H. Huddleston.

Diseases of Eye and Ear.—Drs. C. R. Carr, D. W. Edmiston.

Hypodermic Medication.—Dr. Jno. Wright.

Skin Grafting.—Dr. J. T. Pearman.

New Remedies.—Dr. J. Little.

Progress of Physiology.—Dr. A. L. Norris.

Next place of meeting : Bloomington.

Committee of Arrangements : Drs. T. F. Worrell, R. G. Laughlin, J. L. White, H. C. Luce.

On motion, the Society adjourned at midnight, to meet in Bloomington, the second Tuesday in June, 1874.

W. G. COCHRAN, Sec'y

Editors' Book Table.

NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & CO. whose catalogue of Medical Books will be sent to any address upon request.]

BOOKS RECEIVED.

The Puerperal Diseases—Clinical Lectures delivered at Bellevue Hospital. By FORDYCE BARKER, M.D., Clinical Professor of Midwifery and the Diseases of Women at Bellevue Hospital Medical College, etc., etc. New York : D. Appleton & Co. 1874.

An Introduction to Physical Measurements, with Appendices on absolute Electrical Measurement, etc. By Dr. F. KOHL-RAUSCH, Professor-in-Ordinary at the Grand Ducal Polytechnic School of Darmstadt. Translated from the second German edition, by Thomas Hutchinson Wallen, B.A., B. Sc., and Henry Richardson Proctor, F.C.S. New York : D. Appleton & Co. 1874.

PAMPHLETS RECEIVED.

The Relations of Colorado to Pulmonary Consumption. By THOS. E. MASSEY, A.M. M.D. Denver. 1874.

The Sixth Annual Report of Toronto Eye and Ear Infirmary. 1873.

The Second Biennial Report of the Board of State Commissioners of Public Charities of the State of Illinois. December, 1872.

Contributions to the Natural History of Specific Yellow Fever, etc., etc. By JOSEPH JONES, Professor of Chemistry and Clinical Medicine, University of Louisiana. Reprinted from New Orleans Medical and Surgical Journal—Jan. 1874.

Catalogue of Jefferson Medical College, Philadelphia. Session 1873-4.

- Constants of Nature.* Smithsonian Miscellaneous Collections, 255.
Part 1. Specific Gravities, Boiling and Melting Points, and
Chemical Formulæ.
- Epidemic Diseases as dependent on Meteorological Influences.* By C.
SPINZY, M.D., St. Louis.
- Catalogue of Books and Pamphlets relating to America, etc.*—
Robert Clarke & Co., Cincinnati.
- Medico-Legal Society, New York*—Inaugural Address of CLARKE
BELL, Esq., Nov. 26, 1873, President of the Society.
- Dictionary of Elevations and Climatic Register of United States.*
By J. M. TONER, M.D.
- Transactions of Wisconsin State Medical Society.*
- Report of Brigham Hall, a Hospital for the Insane.* Canandaigua,
N. Y., 1874.

JOURNALS RECEIVED.

- The American Chemist, Philadelphia—January.
- " American Medical Journal—January.
- " American Journal of Syphilography and Dermatology—Jan.
- " Atlanta Medical and Surgical Journal—Feb., March.
- " American Practitioner, Louisville—March.
- " Am. Naturalist (Salem) Peabody Academy of Science—Mar.
- " Boston Medical and Surgical Journal—March, 1874.
- " Boston Journal of Chemistry—March.
- " Canada Medical and Surgical Journal—February.
- " Canada Medical Record—February.
- " Central Law Journal—February 19.
- " Clinic, Cincinnati—Feb. 14, 21, 28, Mar. 7, 14.
- " Cincinnati Lancet and Observer—Feb. and March.
- " Detroit Review of Medicine and Pharmacy—March, 1874.
- " Dental Cosmos, Philadelphia—Jan., Feb., Mar.
- " Druggists' Circular, New York—Mar.
- " Eclectic Medical Journal, Cincinnati—Feb. and March.
- " Indiana Journal of Medicine—Feb.
- " Kansas City Medical Journal—Feb.
- " London Lancet—Feb.
- " Medical Herald, Leavenworth—Feb.
- " Medical Record of New York—Jan. and Feb., Mar. 2.
- " Medical Record of Canada (Montreal)—Feb.
- " Medical and Surgical Reporter, Philadelphia—Feb. 7, 14,
28, Mar. 7, 14.
- " Medical Times, Philadelphia—Feb. 14, 28, March 7, 14.
- " Medical Examiner, Chicago—Mar. 1.
- " Medical News and Monthly, Philadelphia—March.
- " Nashville Journal of Medicine and Surgery—Feb.
- " New Orleans Medical and Surgical Journal—Jan.

- The North-Western Medical and Surgical Journal—March.
 “ New York Medical Journal—March.
 “ Pharmacist, Chicago—March.
 “ Physician and Pharmacist—March. 1874.
 “ Practitioner, London—Feb.
 “ Richmond and Louisville Med. and Surgical Journal—Feb.
 “ Southern Medical Record, Atlanta—Jan., Feb.
 “ United States Med. and Surgical Journal, Chicago—Jan.
 Le Progres Medicale, Paris—Vol. 2, Nos. 3, 4, 5.

Editorial.

The Philadelphia University of Medicine,

Recently suppressed by an Act of the Legislature of the State of Pennsylvania, is represented in Chicago by an individual practicing medicine under the authority (?) of one of its diplomas, who, from evidence in our possession, seems to have acquired his medical education in one of the subterranean beer saloons so abundantly scattered along Milwaukee avenue, being in fact one of the category termed by Falstaff “revolted tapsters.” We have been urged to expose the individual by name, which we decline to do; first, because we do not propose to advertise quacks, and secondly, because we believe that the public will profit by no teacher but experience, and its lessons must be bought, and paid for. Those who habitually place their lives in the hands of physicians of whose skill and integrity they have no evidence, have a perfect right to do so, and if their folly bears its usual fruit they must eat it, thanking themselves alone for the repast, and look to the law for their redress against these, as against other false pretenders.

Sanitary Science.

“*Dogberry*.—We will spare for no wit, I warrant you; here's that [touching his forehead] shall drive some of them to a *non com.*: only get the learned writer to set down our excommunication.”
Much Ado About Nothing. Act III, Scene V.

The “excommunication” has been set down, and it runs thus:
 “He doubted whether syphilis could be considered a contagious

disease in the strict acceptance of the word. He believed it was not contagious, inasmuch as it could not be caught in the air or by contact."

The above is a quotation from the proceedings of the Chicago Board of Health, as published in the Chicago Times, Feb. 26th, and is a sample of the sanitary science for which the city pays seventy or eighty thousand dollars per annum, and also will serve to illustrate the quality of the dead wood out of which this "board" has been constructed.

This opinion was announced during a discussion of certain propositions, the first of which was, "The principal duty and objects of sanitary science, and of boards of health, is to promote and preserve the sanitary safety and health of the citizens, and to improve their sanitary condition." If the expression of such opinions be the first step toward the fulfillment of "the principal duties of sanitary science and boards of health," then we should earnestly pray to be protected from the possible consequences of their continued fulfillment in the manner foreshadowed in the above.

Moreover, the essential correlation of "sanitary science and boards of health" implied in the same, will appear more than doubtful, through the very medium of its expression.

The operations of the Chicago Board of Health have suggested a widely different conception of its duty, its objects and its correlations than that indicated by the proposition quoted above, and a much more intimate affiliation with ward politics and garbage-contracts, than with sanitary science.

In view of the probable selection of Chicago as the place for the next meeting of the Sanitary Association of the United States, we have reason to congratulate ourselves in advance, upon the weight (avoirdupois) of authority with which local sanitary science will be sustained therein.

Asylum for Imbeciles.

We are told by a popular poet that, "for ways that are dark and tricks that are vain, the heathen Chinnee is peculiar," and those who have carefully watched the proceedings of the present legislature at Springfield, and have read House Bill No. 801, will see in it the finger marks of Ah Sin. This is a Bill for an "Act to estab-

lish a Board of Health for the State of Illinois." "To consist of eight (8) persons, who shall be physicians of good standing," to hold office for four years.

Section 2 of this "Bill" defines the duties of said board, in which nothing specially noteworthy occurs, except that they are to report once a year to the Governor "their *doings, investigations and discoveries.*"

Section 3 provides that they shall hold "regular meetings at least once every four months," that four members shall constitute a quorum; that a president shall be elected annually, and a *secretary—who shall be the executive officer of the board—quadrennially.* That "no member shall receive compensation for his services, *except the secretary;*" "Provided, also, that the actual travelling and other expenses incurred by any member, in performing the legitimate work of the board, be paid." That the secretary be allowed to draw upon the treasurer of the State for an amount necessary to purchase the needed stationery, and for other necessary expenses; also, "an *annual* sum for his services," "not to exceed twenty-five hundred dollars for *any one year.*"

Section 4 defines the duties of the secretary, which shall be "to *superintend* the work contemplated in this act," etc., etc.

Section 5 provides, amongst other things, "that such information and statistics," etc., "as *the board of health may deem proper,* shall be recorded," etc.

Section 6 provides for the registration of births, marriages and deaths.

Section 7 provides that all boards of health within the State shall be auxiliary to the State Board, and shall *report* annually to the *secretary* of that board at such time as he may direct.

Section 8 relates to "a seal."

Section 9 initiates the effect of the act, etc.

We said above that the finger marks of Ah Sin—whose smile was child-like and bland—could be traced in this "Bill," and a long bill it will prove to the taxpayers if it should ever become a law. We did not mean literally, because the Bill is written by some one tolerably familiar with the English language, ("which the same *he* does not understand"); but metaphorically, some good-natured friend having put his crude ideas into intelligible shape.

It has recently been stated by the secular press that no less

than twenty-two boards now encumber the administration of this much-governed State, and now when the curses of the people both broad and deep are execrating the corruption growing out of these, it is coolly proposed to add another to the already too long list.

But this one is to "consist of eight persons, who shall be physicians of good standing." Does Ah Sin suppose that eight physicians in good standing are to be found, willing to accept such positions, assume the weighty responsibility incident thereto, and conduct the *work of investigations and discoveries*, defined in the 2nd section of the "Bill," without compensation? He does not suppose it, and if he does not, nobody else is idiot enough to do so. Moreover, there is no such intention or desire on the part of the framer of the Bill. The personnel of the Board will consist of one champion dead-beat (pardon the slang) who will be the secretary, and seven professional nonentities, whose duties will be limited to giving a coloring of legality to the secretary's performances, and—most onerous of all—to listen to his long winded "reports."

In view of the abominable tinkering to which the original Health-Bill, proposed for Chicago, was subjected at Springfield, resulting in the passage of the present legislative abortion; in view of the public ridicule and odium which the Board as now constituted has attracted, by its utter failure to accomplish the objects for which it was ostensibly designed, it would seem to demand a degree of modest assurance amounting to impudence, to attempt the creation of another such imposition upon the credulity and endurance of the community.

Moreover, this House-Bill No. 801, providing for a State Board of Health, is but a cautious first step in the initiation of another and bolder scheme, *i. e.*, the passage through Congress of a law authorizing the creation of a National Board of Health, ostensibly for the preservation of the public health, the cultivation of sanitary science, and the education of the people therein; but in reality to create official position for small professional politicians and placemen, too ignorant and indolent to earn for themselves position and respect in the legitimate walks of professional life.

The tendency of such institutions is to become asylums for worn-out political hacks, having as much knowledge of sanitary science as a hedge priest has of theology; until by their corruption they engender the elements of their own disorganization.

One intelligent and well educated physician, clothed with proper authority, and having the necessary assistance, could render more efficient service in the preservation of public health, the advancement of sanitary science, and the education of the people therein, than this proposed State Board and all its auxiliaries combined. But he must be both intelligent and well educated, and not simply a literary and scientific junk shop, crammed with odds and ends of second-hand information and worn-out ideas borrowed from popular treatises on "Science made easy," or picked up in casual conversations with educated men.

Abstract of the Proceedings of the "Chicago Society of Physicians and Surgeons," for the year 1873.

I. REPORTS.

- a. Annual Report of Section on Practice of Medicine—one paper.
- b. Annual Report of Section on Surgery—three papers.
 - 1. Strictures of Urethra and Rectum.*
 - 2. Electro-Therapeutics of Surgery.
 - 3. Staphyloraphy and Uranoplasty, with exhibition of gag and models.*
- c. Annual Report of Section on Pathology—two papers.
 - 1. Pathology of Nervous System.*
 - 2. Pathology of Ovarian Tumors.
- d. Annual Report of Section on Obstetrics and Diseases of Women and Children—two papers.
 - 1. Diseases of Women.*
 - 2. Diseases of Children.
- e. Annual Reports of Officers of the Society.
- f. Report on the Literature of Cholera, with Abstracts from the Later Authorities.*
- g. Report of Committee on the Prophylaxis and Treatment of the Cholera Endemic in 1873.*
- h. Report on the Therapeutic Value of Cosmoline.

II. PAPERS.

- a. On Centripetal and Centrifugal Neuroses.
- b. On Pathogenesis by the use of Tobacco.*
- c. On the Relations of the Integumentary and Generative Organs.*
- d. On the use of Lime Vapor in Pseudo-Membranous Croup.*

- e. On the Cervix Uteri Before, During, and After Labor. Illustrated by drawings.*
- f. On the Genetic Relations of Marsh Fungi to Malarial Disease. Illustrated by colored sketches and microscopical preparations of palmellæ blood containing sporules, saliva and sporules, etc.*
- g. Review of Hall's Translation of Lanfranc's Surgery, published in London in 1565.*
- h. On the Physiological Relations of Alcohol.*
- i. On some Questions in Therapeutics.
- j. On the Waxy Kidney.*

III. REPORTS OF CASES.

- a. Cases of Cholera, occurring near the Southern Limits of the City of Chicago—Endemic of 1873.
- b. Additional Cases in same general place and time. Illustrated by map of locality.
- c. Additional Cases in the same locality, occurring later in the season.
- d. Cases of Cholera in Louisville, occurring in 1856.
- e. Twelve Cases of Cholera in the City of Chicago in 1873.*
- f. Case of Criminal Abortion—fatal from hemorrhage.
- g. Cases of Intra-laryngeal and Tracheal Medication.
- h. Case of Chronic Inflammation of the Stomach, simulating Cancer, with Report of Necroscopy and Microscopic Pathology, and exhibition of stomach in gross, with magnified and illuminated sections.*
- i. Cases of Uterine Fibroids relieved by the Hypodermic Injection of Ergotine.
- j. Case of Foreign Body in the Urethra.
- k. Case of Gunshot Injury of the Cerebral Sinuses, terminating fatally.
- l. Case of Intense Sciatic Pain from Suppressed Menstruation, relieved by the Thermo-Electric Bath.
- m. Case of Syphilitic Destruction of the Epiglottis, with unimpaired Power of Deglutition. Exhibition of patient.


IV. SPECIMENS PRESENTED.

- a. Semi-calcareous tumor, removed from the arm of a pregnant female—and report of case.
- b. Monster; with complete visceral ectrophy, four mammary glands, and no genito-urinary nor intestinal apertures.
- c. Heart; ruptured from muscular degeneration—and report of case.
- d. Right auricle; perforated by pistol ball—and report of case.
- e. Ossified cardiac valves—and report of case.
- f. Cancer of uterus—and report of case.
- g. Rice water dejections in cholera, mounted on microscopic slides, and illuminated—with reports from cases

V. EXHIBITIONS.

- a. Anatomical models of the Chicago University. Recently purchased in Germany.
 b. Reproductions in colored crayon, of photographs of cutaneous diseases.
 c. Models of invalid and operating chairs, close stools, etc.
 d. Spectroscopic and other scientific apparatus.

Number of meetings in 1873.....	22
Total attendance	436
Average attendance each meeting.....	19.8

 Papers marked with a star, have been published in the medical journals of the city.

Chicago Mortality Report for February, 1874.

MORTALITY IN MONTH OF FEBRUARY, 1874.

Accident, under narcotic	1	Embolism	2
" " tanzy	1	Exophthalmia	1
" by railroad	6	Enteritis	6
" by scalding	2	Exposure	1
Abdomen, congestion of	1	Entero Colitis	1
Anæmia	1	Epilepsy	1
Apoplexy	6	Erysipelas	9
Asthma	3	Fever, intermittent	1
Bowels, congestion of	1	" puerperal	10
Brain, congestion of	4	" scarlet	1
" inflammation of	4	" " malignant	1
" softening of	1	" typhoid	11
Bronchitis	17	Gastritis	2
" capillary	3	Heart, disease of	4
" chronic	2	" paralysis	1
Cancer	1	" aneurism of	1
" of breast	1	" organic disease of	2
" of bowels	1	" hypertrophy of	2
" of liver	1	" valvular disease of	5
" of stomach	1	Hemorrhage, cerebral	1
" of uterus	2	Hernia, strangulated	1
Child-birth	1	Hepatitis	2
Cholera Morbus	1	Hydrocephalus	7
Chest, inflammation of	1	Inanition	9
Consumption	54	Intemperance	3
Convulsions	66	Kidneys, Bright's disease of	4
Croup	3	" inflammation of	2
" membranous	1	Laryngitis	1
Cyanosis	1	Liver, cirrhosis of	1
Debility, general	6	" and kidneys, fatty degenera- tion of	1
Diphtheria	4	Lungs, abscess of	1
Dropsy, general	2	" congestion of	3
" of chest	2	" emphysema of	1
Dysentery, chronic	1		

Lungs, hemorrhage of	2	Pleurisy	7
Malformation	1	Pyæmia	1
Metritis	1	Rheumatism	1
" puerperal	3	" inflammatory	2
Meningitis	9	Scrofula	1
" cerebro spinal	9	Septicæmia	1
" tubercular	1	Small-Pox	11
Mouth, canker sore	1	Spinal Cord, disease of	1
Nervous prostration	1	Stomach, ulceration of	1
Nutrition impaired	1	Suicide, drowning	1
Old Age	17	" cutting throat	1
Orchitis	1	" hanging	1
Esophagitis	1	Tabes Mesenterica	7
Paralysis	3	Teething	4
Parotitis	3	" and complication	2
Pelvic Cellulitis	1	Uterus, hemorrhage of	3
Pericarditis	3	Vertebra, fracture of	1
Peritonitis	6	Vitality deficient	1
" puerperal	3	Whooping Cough	4
Pneumonia	48		
" typhoid	4	Total	472
Premature births, 15 ; Still births, 57.		Total	72

COMPARISON.

Deaths in month of February, 1874	472
" " January, 1874	553
Decrease	81
Deaths in month of February, 1873	586
Decrease	114

AGES.

Under one year	169	Forty years to fifty	39
One year to two	33	Fifty " " sixty	18
Two years to three	10	Sixty " " seventy	18
Three " " four	5	Seventy " " eighty	19
Four " " five	4	Eighty " " ninety	3
Five " " ten	13	Ninety " " one hundred	—
Ten " " twenty	29	One hundred and upwards	2
Twenty " " thirty	59		
Thirty " " forty	51	Total	472

Colored	7	Males	236
White	465	Females	236
Total	472	Total	472
Married, 156 ; Single, 316.		Total	472

NATIVITIES.

Austria	1	Holland	2
Bohemia	7	Ireland	53
Canada	5	Norway	5
Native—Chicago	44	Scotland	8
Foreign, " "	158	Sweden	9
United States, other parts	98	Switzerland	1
England	6	Unknown	4
France	1		
Denmark	4	Total	472
Germany	66		

Deaths daily, 17. Mean thermometer, 32.4°. Rain fall, 1.61 inches.

MORTALITY BY WARDS, ETC., FEBRUARY, 1874.

Wards.	No. Deaths.	Pop. in 1872.	Percentage.
1	4	398	one death in
2	3	2,174	" " "
3	18	19,157	" " " 1,064
4	10	16,832	" " " 1,683
5	11	18,564	" " " 1,688
6	57	31,371	" " " 550
7	40	27,644	" " " 691
8	30	30,253	" " " 1,008
9	26	30,032	" " " 1,155
10	14	16,624	" " " 1,189
11	18	18,340	" " " 1,010
12	11	20,876	" " " 1,898
13	20	14,636	" " " 732
14	11	15,892	" " " 1,445
15	52	40,047	" " " 770
16	32	19,099	" " " 597
17	21	17,513	" " " 834
18	23	19,977	" " " 868
19	6	2,944	" " "
20	7	5,023	" " "

414 Ratio of deaths to population in 1872, one death in 778½.

No. deaths in Wards	414	Mercy Hospital	4
Accidents	10	St. Luke's Hospital	1
Bethel Home	1	St. Joseph's	3
County Hospital	17	Suicides	3
Foundlings' Home	16		
Hospital for Wives and Children	1	Total	472
Protestant Orphan Asylum	2		

CASES OF SMALL-POX REPORTED DURING FEBRUARY, 1874.

Ward.	No. Cases.	Ward.	No. Cases.	Ward.	No. Cases.
1	--	8	--	15	9
2	--	9	1	16	6
3	--	10	--	17	1
4	--	11	1	18	5
5	--	12	--	19	1
6	--	13	--	20	--
7	8	14	1	Recent arrival,	1
Total					34

Cases reported during February, 1874	34
" " " January, 1874	79
Decrease	45
Cases reported during February, 1873	161
Decrease	127